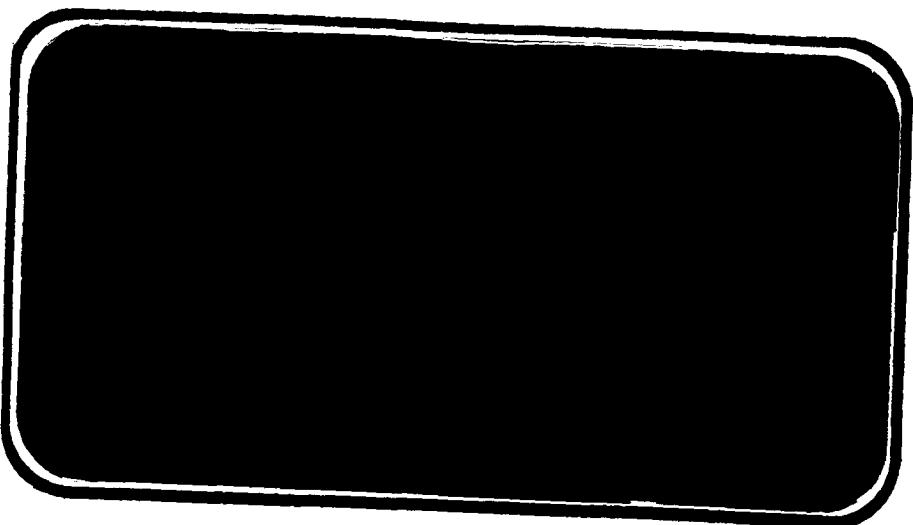




National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas 77058



SPACE SHUTTLE AEROTHERMODYNAMIC DATA REPORT

(NASA-CR-151394) EFFECT OF SILTS POD ON THE
TRANSONIC AERODYNAMIC CHARACTERISTICS OF A
0.015-SCALE SHUTTLE ORBITER MODEL (44-0)
TESTED IN THE NASA/LaRC 8-FOOT TPT (LA111)
(Chrysler Corp.) 190 p

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EFFECT OF SILTS POD ON THE TRANSONIC
AERODYNAMIC CHARACTERISTICS OF A 0.015-SCALE
SHUTTLE ORBITER MODEL (44-0) TESTED
IN THE NASA/LaRC 8-FOOT TPT
(LALL1)

Prepared under NASA Contract Number NAS9-13247

by

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Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: LaRC 8-Foot TPT 786
NASA Series Number: LA111
Model Number: 44-0
Test Dates: August 3 through 5, 1977
Occupancy Hours: 40

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EFFECT OF SILTS POD ON THE TRANSONIC AERODYNAMIC
CHARACTERISTICS OF A 0.015-SCALE SHUTTLE
ORBITER MODEL (44-0) TESTED IN THE
NASA/LaRC 8-FOOT TPT
(LALLI)

ABSTRACT

A study has been made to determine the effect on the aerodynamic characteristics of the Shuttle Orbiter resulting from the addition of the Shuttle Infrared Leeside Temperature Sensing (SILTS) pod to the tip of the vertical tail. The pod is a recent addition to the Shuttle and will contain a camera system to take infrared photographs of the upper surface of the Shuttle during re-entry. These photographs will be used to determine leeside heating. There was concern that the pod might have an effect on the aerodynamics of the Shuttle, particularly the lateral-directional characteristics and rudder effectiveness. Wind tunnel tests were therefore made with an 0.015-Scale Orbiter Model with and without SILTS pod over a Mach number range from 0.6 to 4.63 in the Langley 8-Foot Transonic Pressure Tunnel and the Unitary Plan Wind Tunnels. The transonic results are presented herein and supersonic results in references 1 and 2.

The model was tested in the 8-Foot TPT at Mach numbers of 0.6, 0.8, 0.9, 0.95, 0.98, 1.12 and 1.2 over an angle of attack range from -2° to as much as 20° at 0° and 2° of sideslip. Tests were also made over an angle of sideslip range from -6° to 6° at 11° angle of attack.

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TABLE OF CONTENTS

	Page
ABSTRACT	iii
INDEX OF MODEL FIGURES	2
INDEX OF DATA FIGURES	3
NOMENCLATURE	4
CONFIGURATIONS INVESTIGATED	8
TEST CONDITIONS	9
TEST FACILITY DESCRIPTION	10
DATA REDUCTION	11
REFERENCES	12
TABLES	
I. TEST CONDITIONS	13
II. DATA SET/RUN NUMBER COLLATION SUMMARY	14
III. MODEL DIMENSIONAL DATA	16
FIGURES	
MODEL	26
DATA	33
APPENDIX	
TABULATED SOURCE DATA	

INDEX OF MODEL FIGURES

Figure	Title	Page
1.	Axis Systems	26
2.	Model Sketches	
a.	SSV Orbiter Configuration	27
b.	SIITS Pod	28
c.	Position of Transition Grit Used in Investigation	29
3.	Model Photographs	
a.	Orbiter Configuration, Front 3/4 View	30
b.	SIITS Pod Installation on Vertical Tail	31

INDEX OF DATA FIGURES

FIGURE	FIGURE	PLOT SCHEDULE	CONDITIONS VARYING	PAGE
4	EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES	A	CONFIG., MACH	1-36
5	EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES	A	CONFIG., MACH	37-60
6	EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES	B	CONFIG., MACH	61-66
7	EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES	B	CONFIG., MACH	67-70
8	EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES	C	CONFIG., MACH	71-76
9	EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES	C	CONFIG., MACH	77-80
10	EFFECT OF SILTS POD ON THE RUDDER EFFECTIVENESS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES	D	CONFIG., MACH	81-84
PLOT SCHEDULE:				
(A)	C_L , C_D , C_A , L/D , C_m vs. α ;		(C) C_Y , C_n , and C_ℓ vs. β	
	C_m vs. C_N ; C_Y , C_n , and C_ℓ vs. α		(D) $C_{Y\delta_r}$, $C_{n\delta_r}$, and $C_{\ell\delta_r}$ vs. α	
(B)	$C_{Y\beta}$, $C_{n\beta}$, and $C_{\ell\beta}$ vs. α			

NOMENCLATURE
General

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m ² , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

A _b		base area; m ² , ft ²
b	EREF	wing span or reference span; m, ft
c.g.		center of gravity
$\frac{l}{c}$ _{REF}	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS \ell_{\text{REF}}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$
<u>Stability-Axis System</u>		
C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS \ell_{\text{REF}}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
C_l	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D _f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

NOMENCLATURE (Continued)
Additions to Nomenclature

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
δ_a	AIRLON	aileron, total aileron deflection angle, degrees, (left aileron-right aileron)/2
δ_e	ELEVON	elevon, surface deflection angle, positive deflection trailing edge down, (left aileron + right aileron)/2
C_A	CA	axial-force coefficient unadjusted for base or sting cavity pressures
δ_{SB}	SPDBRK	speed brake deflection angle, degrees
δ_r	RUDDER	rudder deflection angle, degrees
δ_{BF}	BDFLAP	bodyflap deflection angle, degrees
δ_{eL}	ELVN-L	left elevon surface deflection angle, positive deflection trailing edge down, degrees
δ_{eR}	ELVN-R	right elevon surface deflection angle, positive deflection trailing edge down, degrees
A_{sc}		sting cavity area, m^2 , ft ²
l_B		body length, m, ft.
$\Delta\beta$	DBETA	incremental angle of sideslip, difference between two or more test runs, degrees
	GRIT	parameter to denote testing with grit GRIT = 1 (grit on), GRIT = 0 (grit off)
$C_{Y\beta}$	DCY/DB	side-force coefficient derivative with respect to beta, per degree
$C_n\beta$ (BODY)	DCYNDB	yawing-moment coefficient derivative with respect to beta, per degree
$C_l\beta$ (BODY)	DCBLDB	rolling-moment coefficient derivative with respect to beta, per degree
$C_{Y\delta_r}$	DCY/DR	side-force coefficient derivative with respect to rudder deflection, per degree

NOMENCLATURE (Concluded)

<u>SYMBOL</u>	<u>MNEMONIC</u>	<u>DEFINITION</u>
$C_n_{\delta_r}$ (BODY)	DCYNDR	yawing-moment coefficient derivative with respect to rudder deflection, per degree
$C_l_{\delta_r}$ (BODY)	DCBLDR	rolling-moment coefficient derivative with respect to rudder deflection, per degree
$\Delta\delta_r$	DELRUD	differential rudder deflection, degrees
$C_{p_{b1,2}}$	CPBL, 2	base pressure coefficients
$C_{p_{c1,2}}$	CPC1, 2	sting cavity pressure coefficients

CONFIGURATIONS INVESTIGATED

The test model was a 0.015-scale model of the Space Shuttle Orbiter (figures 2 and 3). The model was constructed at the Langley Research Center using the nose section forward of full-scale fuselage station 672.8, the vertical tail, and OMS pods from an existing Rockwell model 49-0. The remainder of the model, the wings, elevons, body and SILTS pod were constructed from Rockwell-furnished line details. A sketch and photograph of SILTS pod are presented in figures 2b and 3b, respectively.

The model configuration is summarized as follows:

Orbiter-140A/B/C = B₂₆ C₉ E₄₃ F₈ M₁₆ N₂₈ R₅ S V₈ W

<u>Component</u>	<u>Definition</u>
B ₂₆	Fuselage per Rockwell Lines VL70-000140A and VL70-000140B (Model SS-A00147)
C ₉	Canopy per Rockwell Lines VL70-000140A and VL70-000143B (Model drawing SS-A00147)
E ₄₃	Slotted version (6-inch) of E26 elevons per Rockwell VL70-000145 (Model drawing SS-A00147)
F ₈	Body flap per Rockwell Lines VL70-000145 (Model drawing SS-A00147)
M ₁₆	OMS/RCS pods per Rockwell Lines VL70-0084010 (Model drawing SS-A00147)
N ₂₈	OMS engine nozzle per Rockwell Lines VL70-000145 (Model drawing SS-A00147)
R ₅	Rudder per Rockwell Lines VL70-000146 (Model drawing SS-A00148)
S	SILTS pod per Rockwell Lines VL70-900-015 (Basic control drawing)
V ₈	Vertical tail per Rockwell Lines VL70-000146A (Model drawing SS-A00148)
W	Wing per Rockwell V70-30-906-01 (Basic control drawing)

A complete description of model dimensional data is given in table III.

TEST CONDITIONS

The tunnel conditions existing during the test are summarized in table I and the configurations tested are shown in table II. The model was sting supported, and the aerodynamic forces and moments were measured by an internally mounted six-component strain gage balance. In an attempt to insure turbulent flow over the model, strips of carborundum grit were applied to the wing, vertical tail, and nose as shown in figure 2. Model angle of attack was varied from about -2° to 20° for angles of sideslip of 0° and 2° . Sideslip angles were varied from -6° to 6° at an angle of attack of 11° . Angles of attack and sideslip have been corrected for the effects of sting deflection under load.

TEST FACILITY DESCRIPTION

NASA/Langley Research Center 8-foot Transonic Pressure Tunnel is an air-medium facility capable of attaining continuously variable Mach numbers from 0.20 to 1.30. It is a single-return, closed-circuit tunnel, having controlled stagnation temperature, total pressure, and dew-point temperature. The test section is 7.1 square feet. Reynolds numbers are variable from $0.30 \times 10^6/\text{foot}$ to $7.00 \times 10^6/\text{foot}$, depending on Mach number and tunnel total-pressure limitations. Models are supported in the test section by a sting-sector system, but wall-mounting is possible. Schlieren photography is available for flow and shock-wave studies.

DATA REDUCTION

LaRC UT-27-100 six-component strain gage balance was used to measure model forces and moments. All final data were presented along a set of body and stability axes (figure 1) through the nominal center of gravity located at F.S. 1076.7 and FRL 375.0. Drag data presented represent gross drag in that no corrections to free-stream conditions in the base regions have been made. Model data were converted to standard NASA coefficients using the following constants:

Reference Area	$S_{ref} = 0.605 \text{ ft.}^2$
Reference Length	$l_{ref} = 7.122 \text{ in.}$
Reference Span	$b_{ref} = 14.05 \text{ in.}$
Total base area excluding sting cavity	$A_b = 0.0615 \text{ ft.}^2$
Sting cavity area	$A_{sc} = 0.03409 \text{ ft.}^2$

REFERENCES

1. Chrysler Corporation Michoud Defense-Space Division, Data Management Services, DMS-DR-2396. "Effect of SILTS Pod on the Low Supersonic Aerodynamic Characteristics of a 0.015-Scale Shuttle Orbiter Model (44-0) in the LaRC UPWT (LAI10)."
2. Chrysler Corporation Michoud Defense-Space Division, Data Management Services, DMS-DR-2399. "Effect of SILTS Pod on the High Supersonic Aerodynamic Characteristics of a 0.015-Scale Shuttle Orbiter Model (44-0) in the LaRC UPWT (LAI14)."

TABLE I

TEST : 8' TPT 786 (LA111)

DATE : 9-23-77

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per foot)	DYNAMIC PRESSURE (pounds/sq. foot)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.6	3.5×10^6	461	100
0.8	3.5×10^6	576	100
0.9	3.5×10^6	625	100
0.95	3.5×10^6	647	100
0.98	3.5×10^6	659	100
1.12	3.5×10^6	707	100
1.20	3.5×10^6	730	100

BALANCE UTILIZED: LaRC UT-27-100

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	<u>600 lb.</u>	<u>± 3.0 lb.</u>	_____
SF	<u>300 lb.</u>	<u>± 1.5 lb.</u>	_____
AF	<u>100 lb.</u>	<u>± 0.5 lb.</u>	_____
PM	<u>800 in-lb.</u>	<u>± 4.0 in-lb.</u>	_____
RM	<u>400 in-lb.</u>	<u>± 2.0 in-lb.</u>	_____
YM	<u>600 in-lb.</u>	<u>± 3.0 in-lb.</u>	_____

COMMENTS:

TABLE II

TEST : LATE 85747786(LA111)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE : 8-5-77

DATA SET IDENTIFIER		CONFIGURATION		SCHD.	PARAMETERS/VALUES				NO. OF RUNS				MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)			
		α	β	c_1	c_2	c_3	c_4	c_5	c_6	c_7	c_8	c_9	c_{10}	c_{11}	c_{12}	
RKJ001	Orb, \$17. Pad OFF	A	O	O	O	25	O					21	18	15	12	9
02				↓	2							22	19	16	13	10
03				↓	11°	B						23	20	17	14	11
04				DN	A	O						24	26	23	20	17
05					↓	2						25	27	24	21	18
06					↓	11°	B	↓				26	28	25	22	19
07					A	O		55				27	29	26	23	20
08						↓	2					28	29	27	24	21
09						↓	11°	B	↓			29	31	28	25	22
10						OFF	A	O				30	32	29	26	23
11							↓	2	↓			31	48	45	42	39
12							11°	B	↓			32	49	46	43	40
13								A	O	↓		33	50	47	44	41
14									↓			34	51	48	45	42
15									11°	B	↓	35	52	49	46	43
16									OFF	A	↓	36	53	50	47	44
17										V	↓	37	54	51	48	45
R		BETA	CN	CA	CLM	CLM	CYN	CY	CL	CL	CD	L/D	MACH	ALPHA	10	
S		ALPHA	CN	CA	CLM	CLM	CYN	CY	CL	CL	CD	L/D	MACH	BETA	10	
S		G(P-E)	RN/L	CPE1	CPE2									ALPHA	4	
S		COEFFICIENT SCHEDULES												IOVAR (1)	IOVAR (2)	
S		TYPE OF DATA												$\alpha = -2^\circ \quad \kappa_e / 8^\circ$		
S		α OR β												$\beta = -6^\circ \quad \kappa_e + 6^\circ$		
S		SCHEDULES												NOV		

TEST : LARC 8'TPT 786 (LAIII)

TABLE II (Concluded)
DATA SET/RUN NUMBER COLLATION

TABLE III.
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY B₂₆

GENERAL DESCRIPTION : Configuration 140A/B Orbiter Fuselage

NOTE: B₂₆ is identical to B₂₄ except underside of fuselage has been
refaired to accept W

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER : VL70-000143B, -000200, 000205, -006089,
-000145, -000140A, 000140B

DIMENSIONS :	FULL SCALE	MODEL SCALE
* Length (OML: Fwd Sta. $X_0=235$) -In.	<u>1293.3</u>	<u>19.400</u>
* Length(ML: Fwd Sta. $X_0=238$) -In.	<u>1290.3</u>	<u>19.355</u>
* Max Width (@ X = 1528.3) - In.	<u>264.0</u>	<u>3.960</u>
Max Depth (@ $X_0= 1464$) - In.	<u>250.0</u>	<u>3.750</u>
Fineness Ratio	_____	_____
Area - Ft^2	_____	_____
Max. Cross-Sectional	<u>340.88</u>	<u>0.077</u>
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE III-Continued
MODEL DIMENSIONAL DATA

MODEL COMPONENT : CANOPY - C₉

GENERAL DESCRIPTION : Configuration 3A, Canopy used with Fuselage

B26.

MODEL SCALE: 0.015

MODEL DRAWING: SS-A00147 , RELEASE 12

DRAWING NUMBER : VL70-000143A/B

DIMENSIONS :

FULL SCALE

MODEL SCALE

Length ($X_O = 434.643$ to 587) 143.357 2.150

Max Width (@ $X_O = 513.127$) 152.412 2.286

Max Depth (@ $X_O = 485.0$) 25.000 0.375

Fineness Ratio

Area

Max. Cross-Sectional

Planform

Wetted

Base

TABLE III-Continued
MODEL DIMENSIONAL DATA

MODEL COMPONENT : SLOTTED ELEVON (6-inch GAP) - E₄₃

GENERAL DESCRIPTION Configuration 140A/B Orbiter elevon.

NOTE: E₄₃ is a slotted version of E₂₆. Data are for one side.

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00147

DRAWING NUMBER VL70-000-000145

DIMENSIONS	FULL SCALE	MODEL SCALE
Area - Ft ²	210.0	0.0473
Span (equivalent) - In.	349.2	5.238
Inb'd equivalent chord - In.	118.004	1.770
Outb'd equivalent chord/ total surface chord	55.192	0.828
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.2096	0.2096
At Outb'd equiv. chord	0.4004	0.4004
Sweep Back Angles, degrees		
Leading Edge	0.00	0.00
Trailing Edge	-10.056	-10.056
Hingeline	0.00	0.00
Area Moment (Normal to hinge line)	1587.25	0.00536
Mean Aerodynamic Chord (\bar{c}), in.	90.7	1.3605

TABLE III-Continued
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY FLAP -F8

GENERAL DESCRIPTION : Configuration 140A/B Orbiter Body Flap.

Hingeline located at $X_0 = 1528.3$, $Z_0 = 284.3$

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER: VL-000140A, VL70-000145

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ($X_0 = 1520$ To $X_0 = 1613$)	<u>93.000</u>	<u>1.395</u>
Max Width (In.)	<u>262.00</u>	<u>3.930</u>
Max Depth ($X_0 = 1520$) - In.	<u>23.000</u>	<u>0.345</u>
Fineness Ratio	_____	_____
Area - Ft^2	_____	_____
Max. Cross-Sectional	_____	_____
Planform	<u>150.525</u>	<u>0.0339</u>
Wetted	_____	_____
Base	<u>41.84722</u>	<u>0.00941</u>

TABLE III-Continued
MODEL DIMENSIONAL DATA

MODEL COMPONENT : OMS Pod (M16)

GENERAL DESCRIPTION : Configuration 140D Orbiter OMS Pod

MODEL SCALE: 0.015 MODEL DRAWING NO: SS-A00147
 VL70-000140D
 DRAWING NUMBER: VL70-0084010

DIMENSIONS:	FULL SCALE	MODEL SCALE
Length (OMS Fwd Sta $X_0=1310.5$) - In.	<u>258.5</u>	<u>3.878</u>
Max Width (@ $X_0 = 1511$) - In.	<u>136.8</u>	<u>2.052</u>
Max Depth (@ $X_0 = 1511$) - In.	<u>74.7</u>	<u>1.121</u>
Fineness Ratio	<u>2.484</u>	<u>2.484</u>
Area - Ft. ²		
Max. Cross-Sectional	<u>58.864</u>	<u>0.0132</u>
Planform		
Wetted		
Base		

TABLE III - MODEL DIMENSIONAL DATA-Continued

MODEL COMPONENT: OMS NOZZLES - N28

GENERAL DESCRIPTION: Configuration 140A/B Orbiter OMS Nozzles

MODEL SCALE: 0.015 MODEL DRAWING: SS-000147
RELEASE 5 (Contour)DRAWING NUMBER: VL70-000145, (location)

DIMENSIONS:	FULL SCALE	MODEL SCALE
MACH NUMBER	_____	_____
Length- In.	_____	_____
Gimbal Point to Exit Plane	_____	_____
Throat to Exit Plane	_____	_____
Diameter - In.	_____	_____
Exit	_____	_____
Throat	_____	_____
Inlet	_____	_____
Area - ft ²	_____	_____
Exit	_____	_____
Throat	_____	_____
Gimbal Point (Station) - In.		
Left Nozzle		
X ₀	1518.0	22.770
Y ₀	-88.0	-1.320
Z ₀	490.2	7.380
Right Nozzle		
X	1518.0	22.770
Y	+88.0	+1.320
Z	492.0	7.380
Null Position - Deg.		
Left Nozzle		
Pitch	15°49'	15°49'
Yaw	12°17'	12°17'
Right Nozzle		
Pitch	15°49'	15°49'
Yaw	12°17'	12°17'

TABLE III-Continued
MODEL DIMENSIONAL DATA

MODEL COMPONENT	RUDDER - R ₅
GENERAL DESCRIPTION	2A, 3, 3A, and 140A/B Configurations
MODEL SCALE:	0.015
MODEL DRAWING:	SS-A00148
DRAWING NUMBER	VL70-000146A, VL70-000095, V170-000139

DIMENSIONS	FULL SCALE	MODEL SCALE
* Area Ft ²	100.15	0.0225
Span (equivalent) - In.	201.0	3.015
Inb'd equivalent chord - In.	91.585	1.3738
Outb'd equivalent chord - In.	50.833	0.7625
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.400	0.400
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge	34.83	34.83
Trailing Edge	26.25	26.25
Hingeline	34.83	34.83
Area Moment (Normal to hinge line)	610.92	0.002
Mean Aerodynamic Chord, - In.	73.2	1.098

TABLE III-Continued
MODEL DIMENSIONAL DATA

MODEL COMPONENT : SILTS POD - S

GENERAL DESCRIPTION : _____

MODEL SCALE: 0.015

DRAWING NUMBER : BCD V70-900-015

DIMENSIONS :	FULL SCALE	MODEL SCALE
Max. Width-In.	<u>21.333</u>	<u>0.320</u>
Max. Depth-In.	<u>20.200</u>	<u>0.303</u>
Length (Overall)-In.	<u>133.600</u>	<u>2.004</u>
Fineness Ratio	_____	_____
Area	_____	_____
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE III (Continued)
MODEL DIMENSIONAL DATA - Continued

MODEL COMPONENT: VERTICAL - V8

GENERAL DESCRIPTION: Configuration 140A/B Orbiter Vertical Tail

MODEL SCALE: 0.015

DRAWING NUMBER: SS-A00148,
RELEASE 6

DRAWING NUMBER: VL70-000146A

DIMENSIONS:

FULL SCALE MODEL SCALE

TOTAL DATA

Area (Theo) - Ft ²	<u>413.253</u>	<u>0.093</u>
Planform		
Span (Theo) - In.	<u>315.720</u>	<u>4.736</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.000</u>	<u>45.000</u>
*Trailing Edge	<u>26.2</u>	<u>26.2</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>

Chords:

Root (Theo) WP	<u>268.500</u>	<u>4.028</u>
Tip (Theo) WP	<u>108.470</u>	<u>1.627</u>
MAC	<u>199.808</u>	<u>2.997</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>21.953</u>
W.P. of .25 MAC	<u>635.522</u>	<u>9.533</u>
B.L. of .25 MAC	<u>0.00</u>	<u>0.00</u>

Airfoil Section

Leading Wedge Angle - Deg.	<u>10.00</u>	<u>10.00</u>
Trailing Wedge Angle - Deg.	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>2.00</u>	<u>0.030</u>

Void Area

13.17 0.030

Blanketed Area

0.00 0.00

TABLE III (Concluded)

MODEL COMPONENT: WING-W

GENERAL DESCRIPTION: Configuration 4

NOTE: Identical to W₁₁₄ except airfoil thickness.

Dihedral angle is along trailing edge of wing.

MODEL SCALE: 0.015

MODEL DRAWING: SS-AC0148

DRAWING NUMBER:

V70-30-906-01 (BCD)

DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA

Area (Theo) Ft ²		
Planform	2690.00	0.605
Wetted		
Span (equivalent) (Theo) In.	936.68	14.050
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	0.500	0.500
Aerodynamic Twist, degrees	+3.000	+3.000
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	-10.056	-10.056
0.25 Element Line	35.209	35.209
Chords:		
Root (Wing Sta. 0.0) (Theo) B.P.O.O.	689.24	10.339
Tip, (equivalent) (Theo) B.P.	137.85	2.068
MAC	474.81	7.122
Fus. Sta. of .25 MAC	1136.83	17.052
W.P. of .25 MAC	290.58	4.359
B.L. of .25 MAC	182.13	2.732
Airfoil Section		
Root		
Tip		

EXPOSED DATA

Area Ft ²		
Span, (equivalent) (Theo) In. BP103	1751.50	0.394
Aspect Ratio	720.68	10.810
Taper Ratio	2.059	2.059
Chords	0.245	0.245
Root BP108	562.09	8.431
Tip 1.00 b	137.85	2.058
MAC	392.83	5.892
Fus. Sta. of .25 MAC	1185.98	17.720
W.P. of .25 MAC	294.30	4.415
B.L. of .25 MAC	251.77	3.777

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

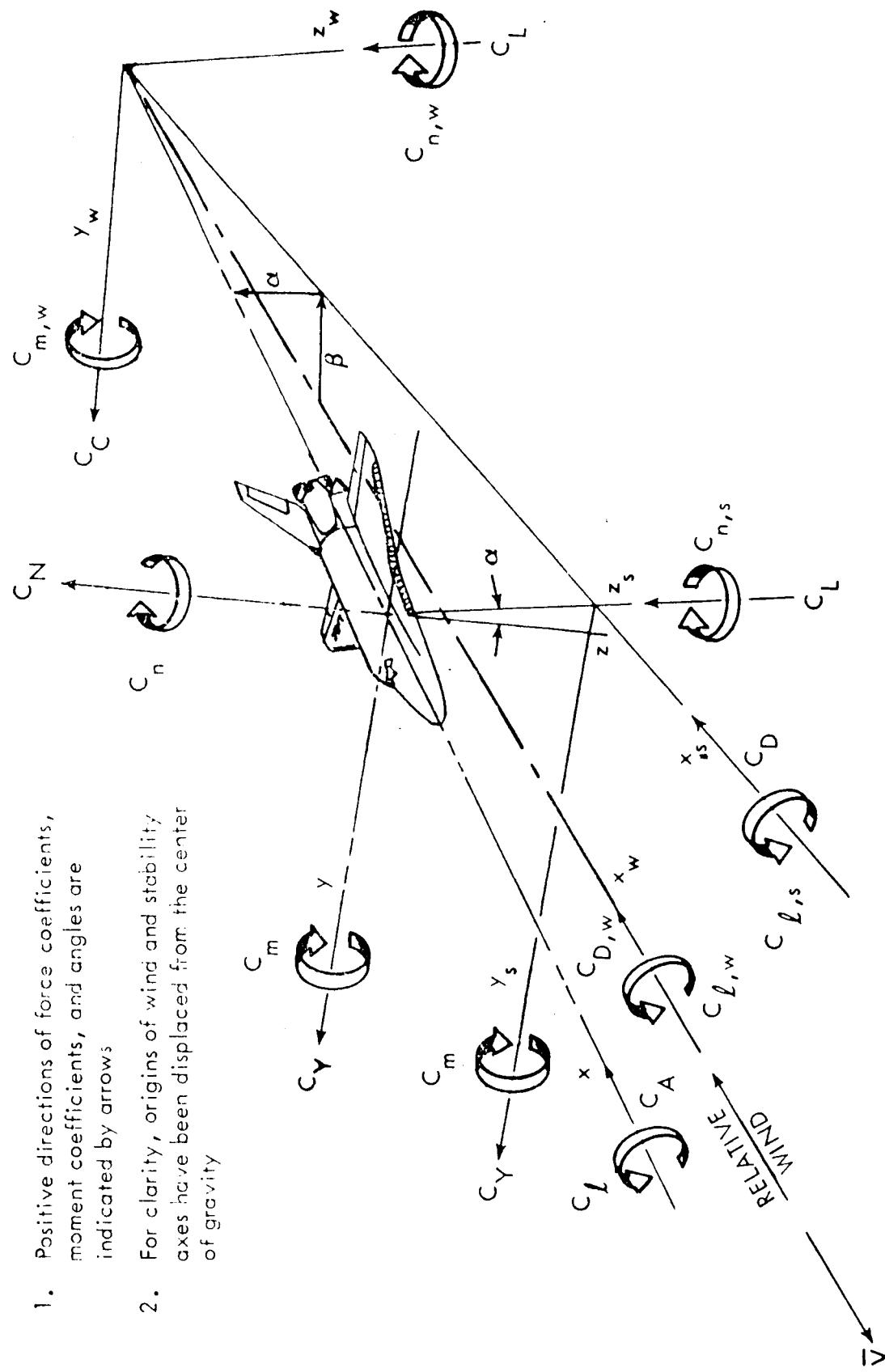
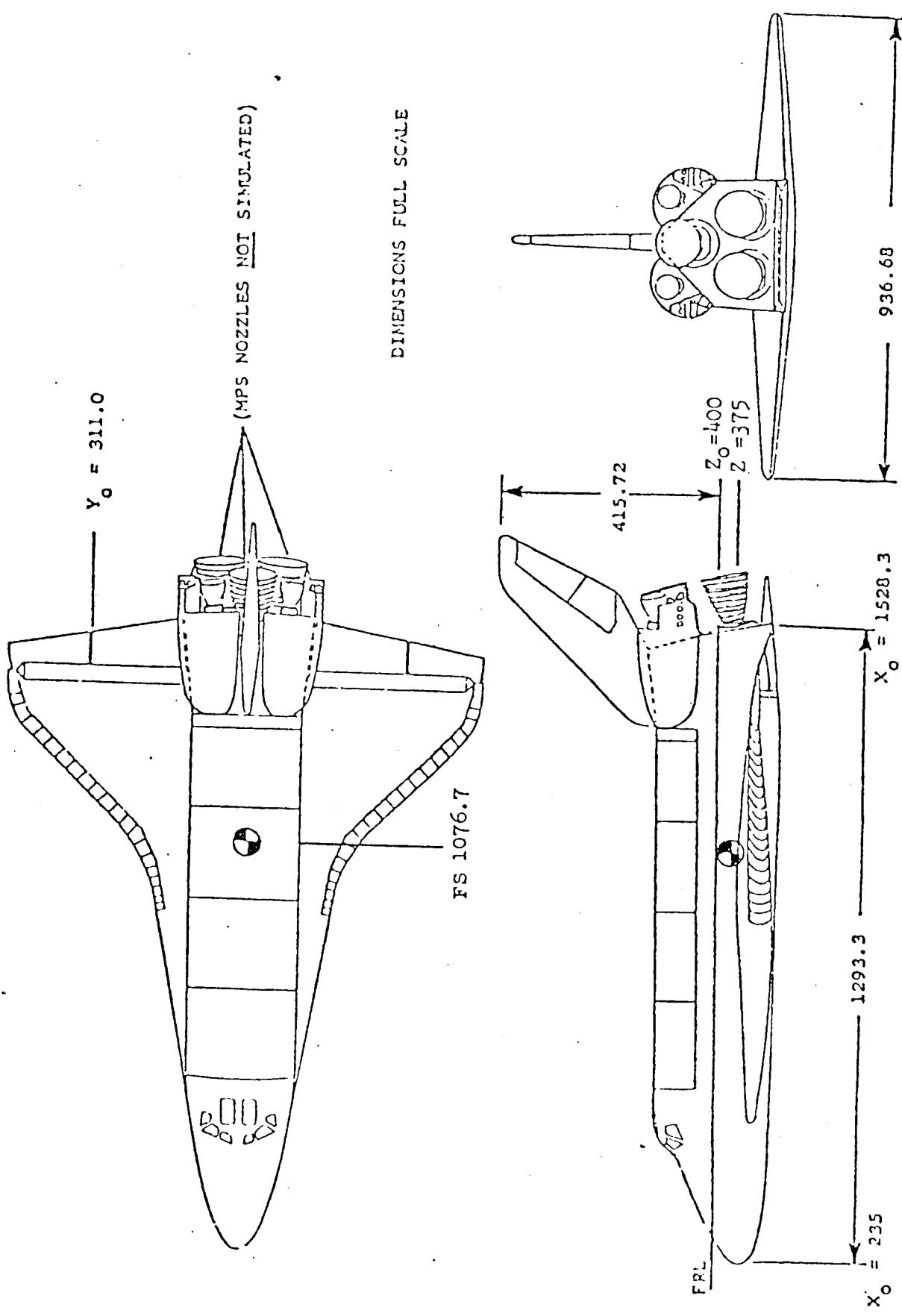
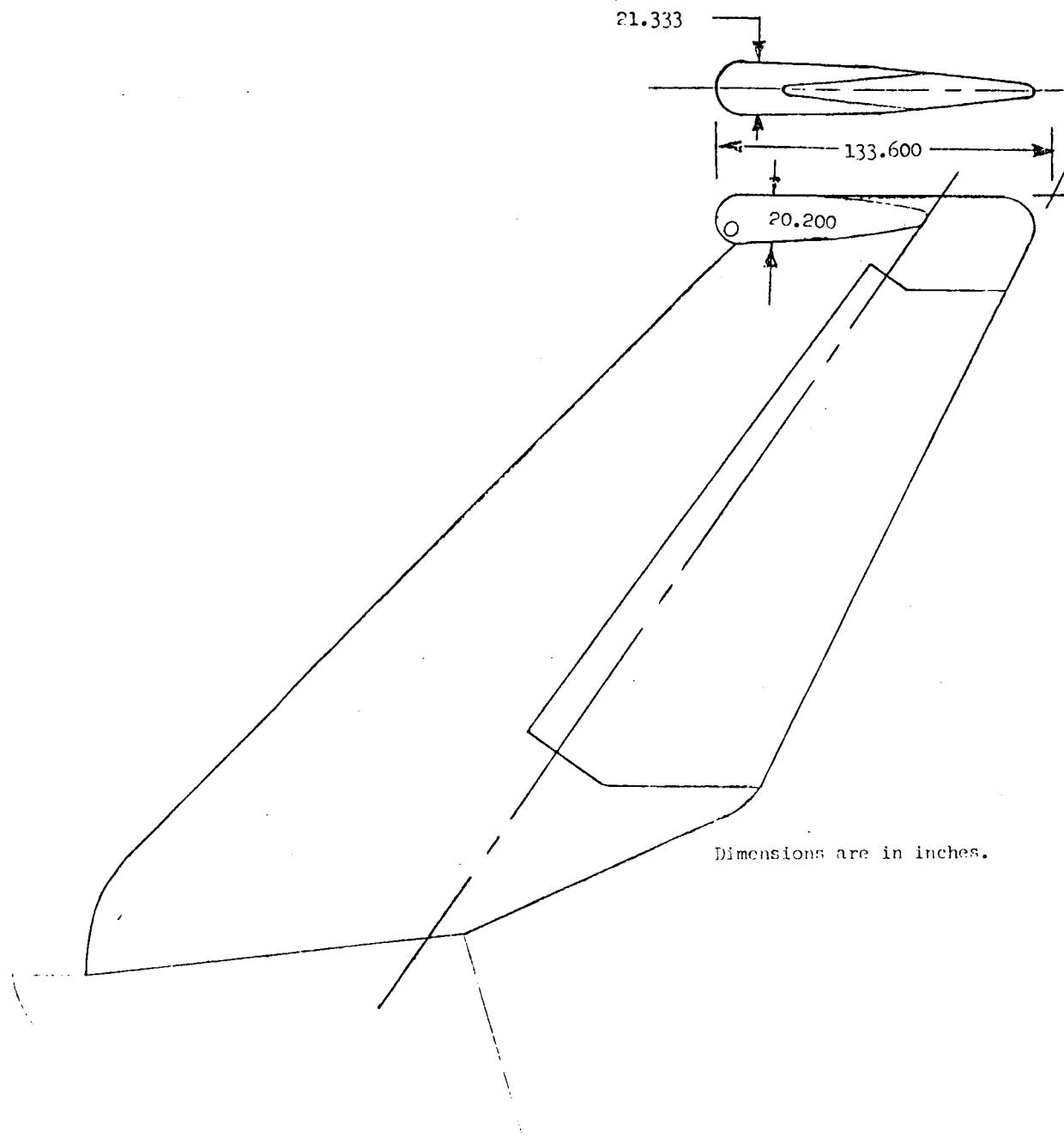


Figure 1. Axis Systems



a. SSV Orbiter Configuration

Figure 2. Model Sketches

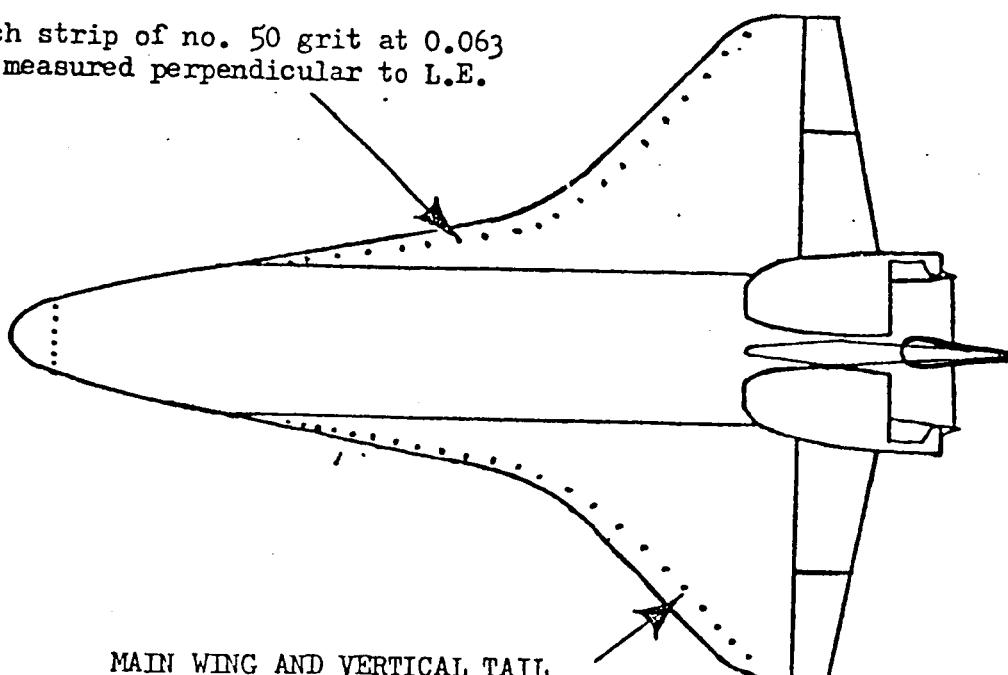


b. SILTS Pod

Figure 2. Model Sketches

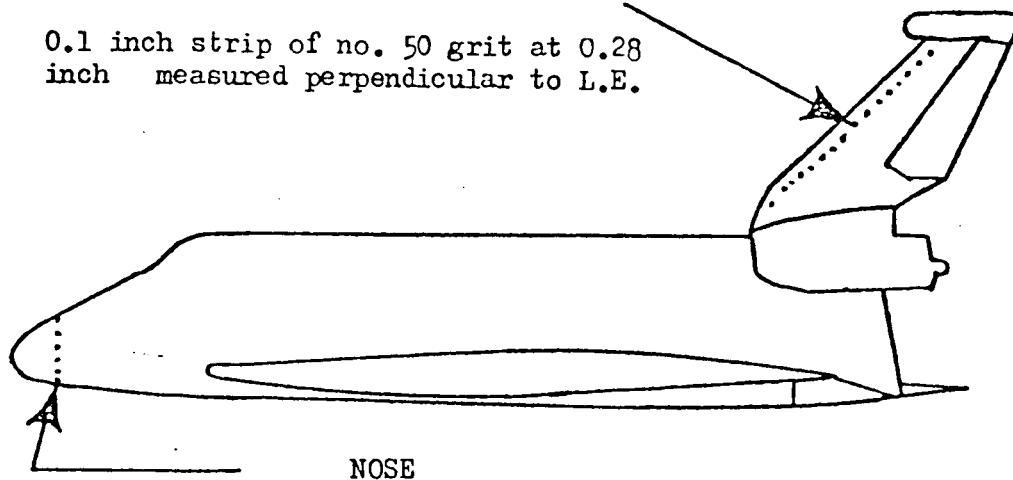
FILLET

0.1 inch strip of no. 50 grit at 0.063
inch measured perpendicular to L.E.



MAIN WING AND VERTICAL TAIL

0.1 inch strip of no. 50 grit at 0.28
inch measured perpendicular to L.E.

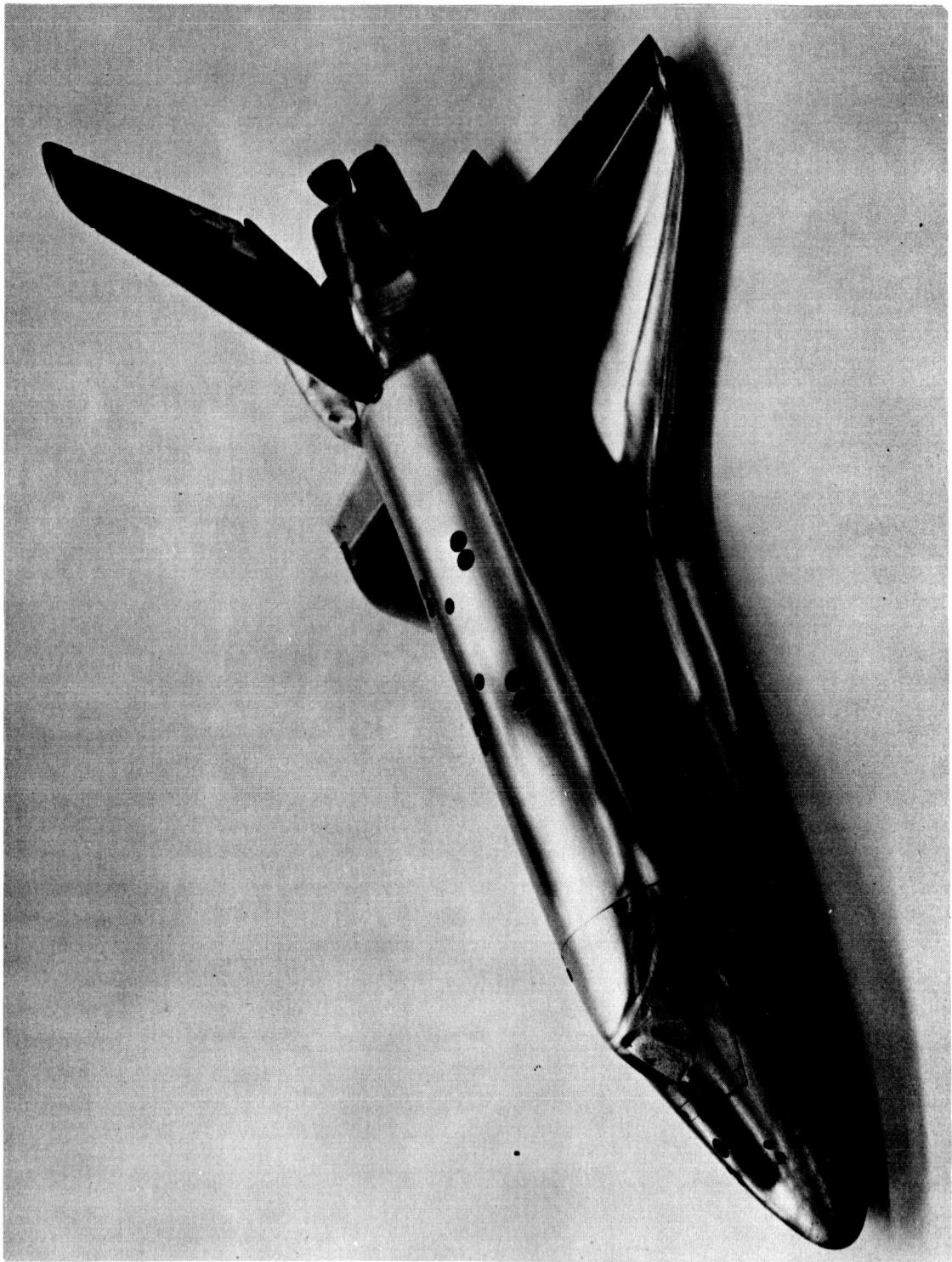


NOSE

0.1 inch strip of no. 50 grit at 1.2
inch measured streamwise

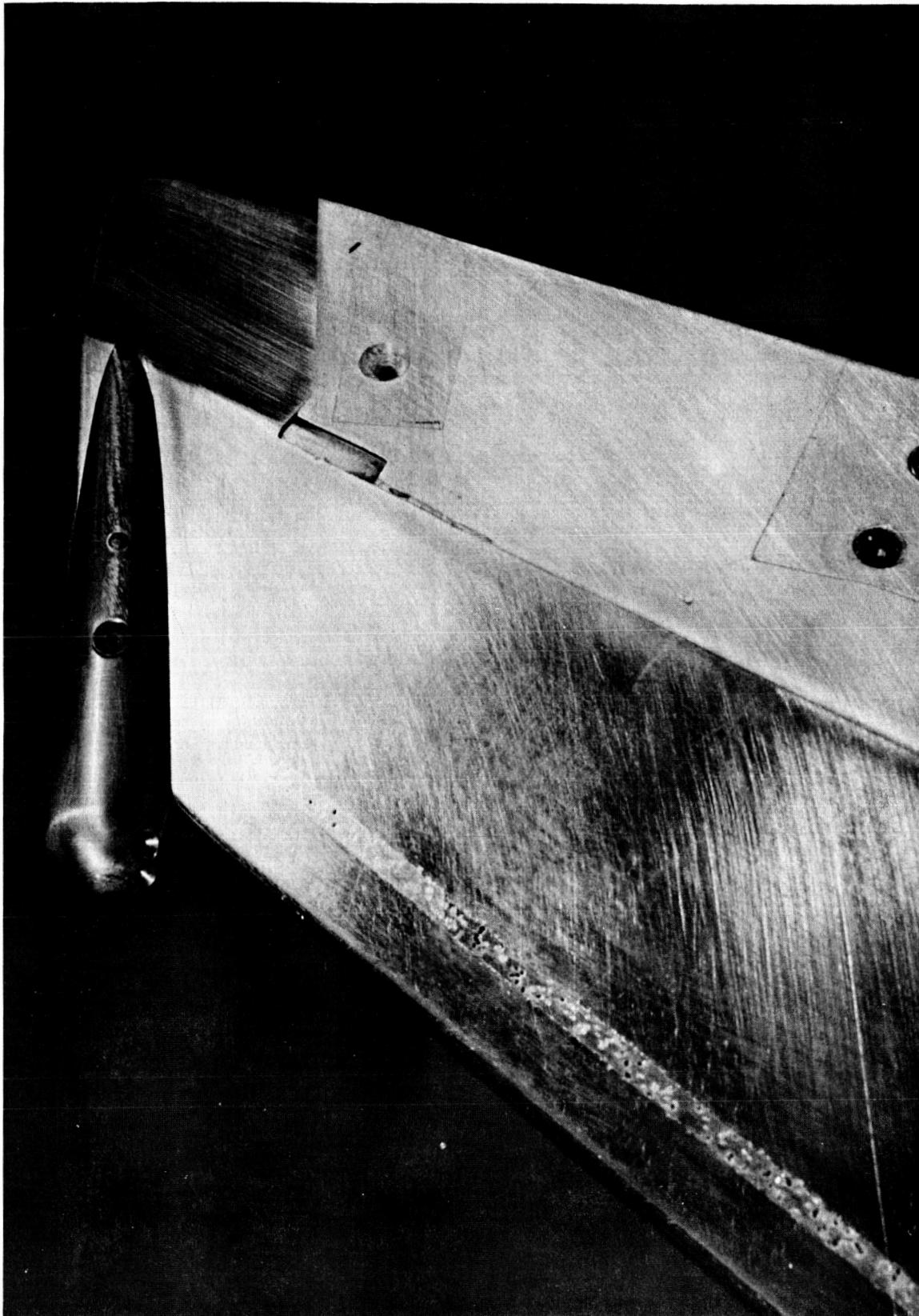
c. Position of Transition Grit Used in Investigation

Figure 2. Concluded



a. Orbiter Configuration, Front, 3/4 View

Figure 3. Model Photographs



b. SIIMS Pod Installation on Vertical Tail

Figure 3. Concluded

DATA FIGURES

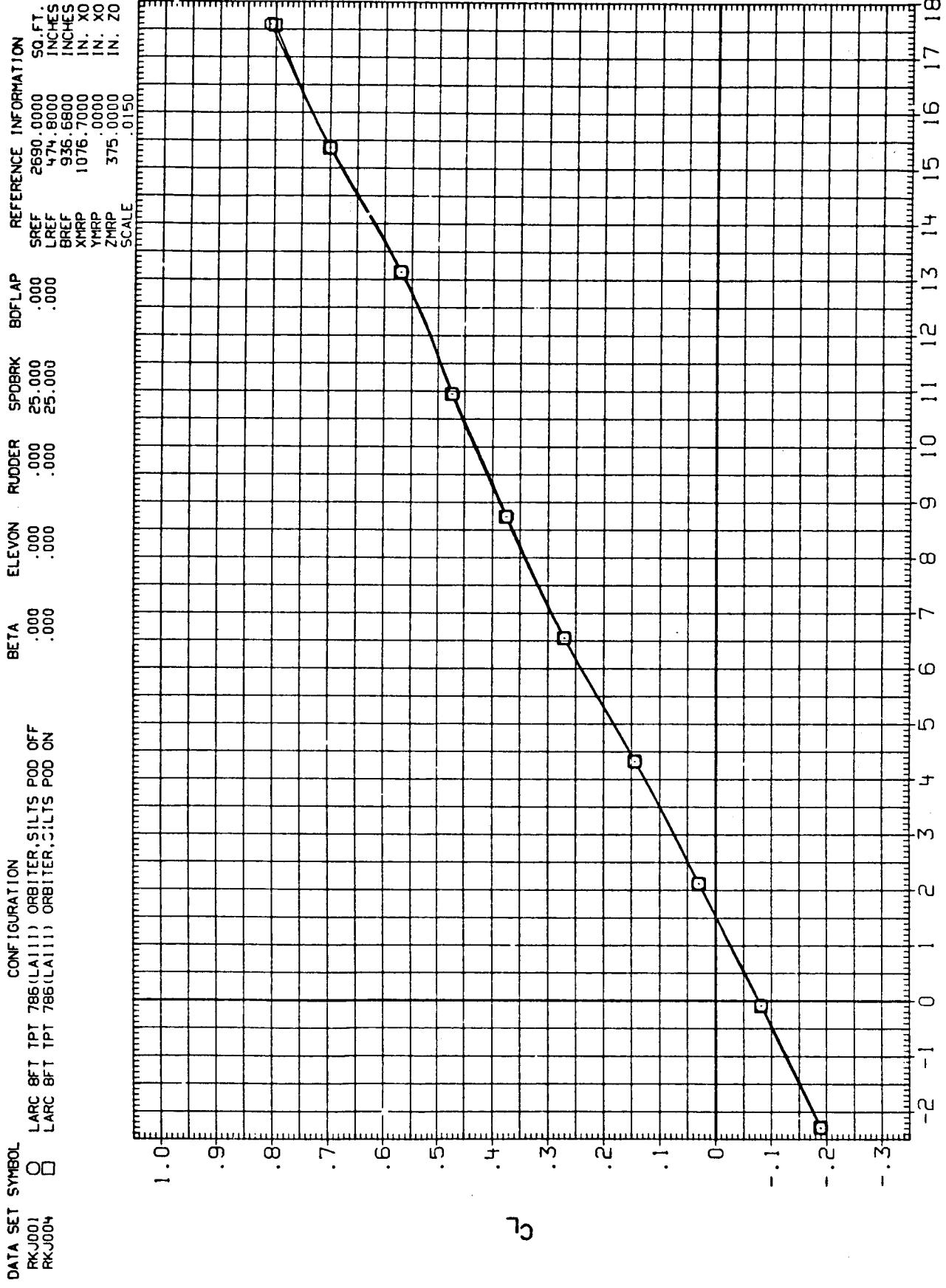


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A) MACH = .80

PAGE 1

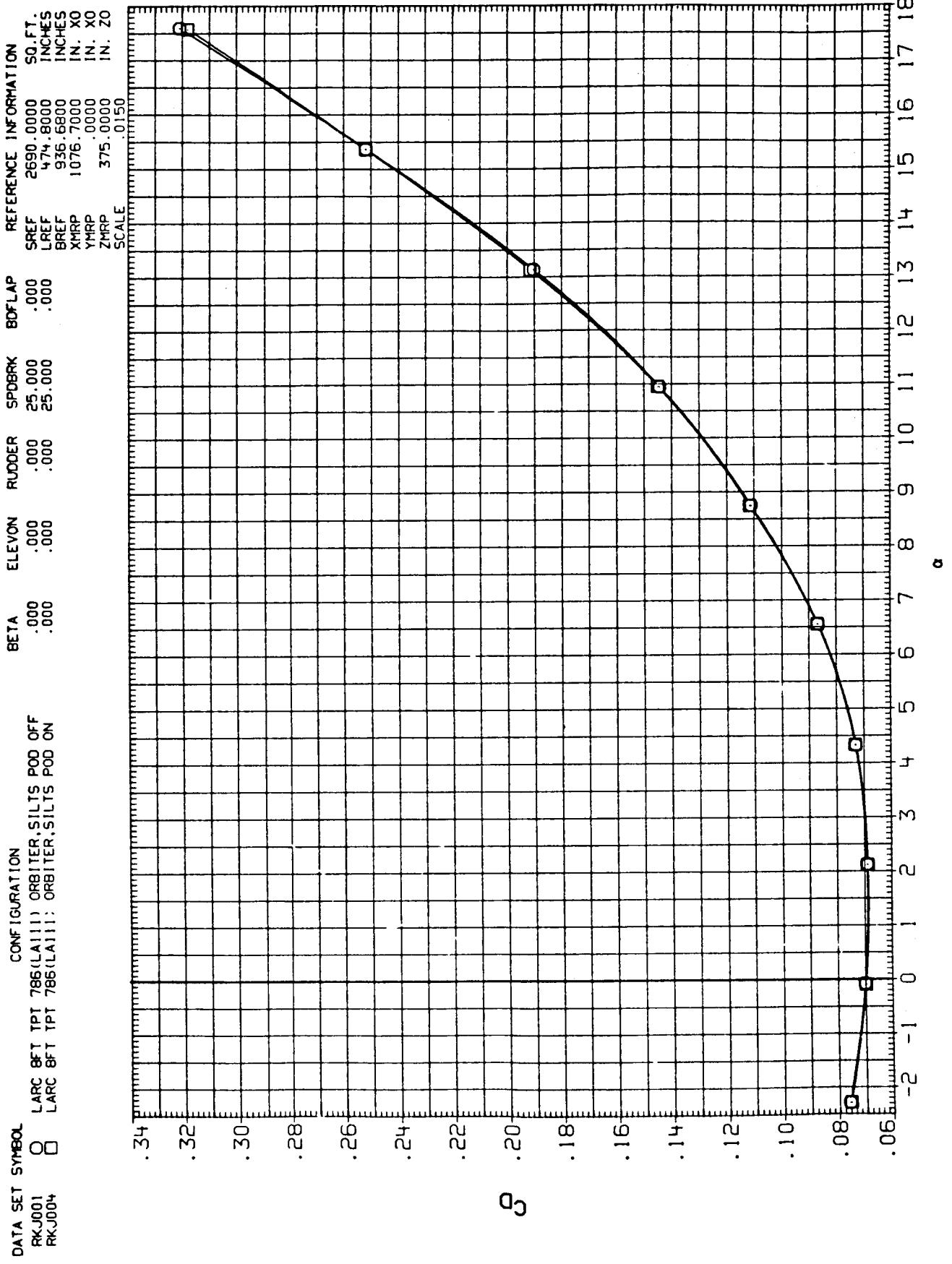


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

PAGE 2

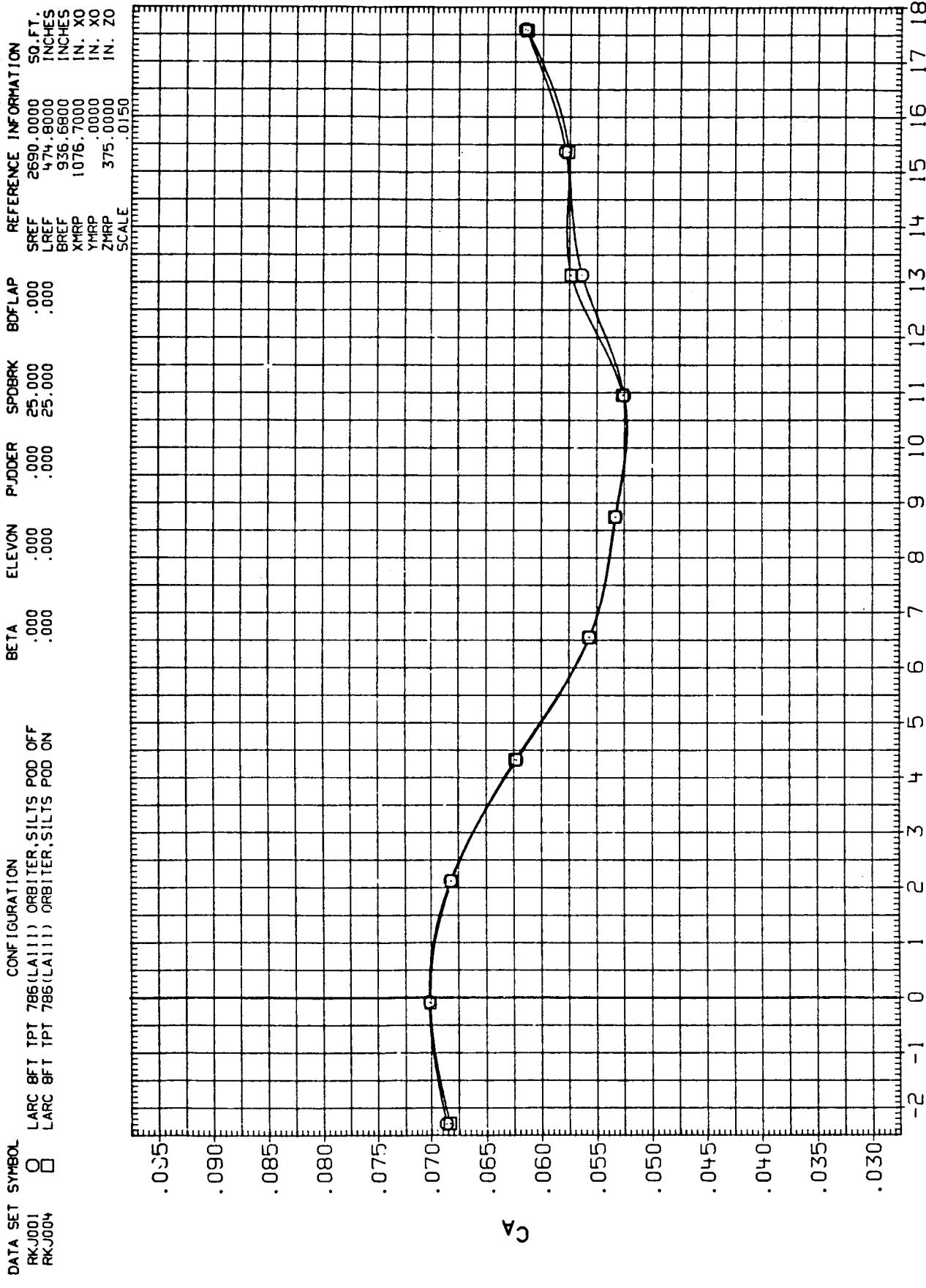


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(A) MACH = .80

PAGE 3

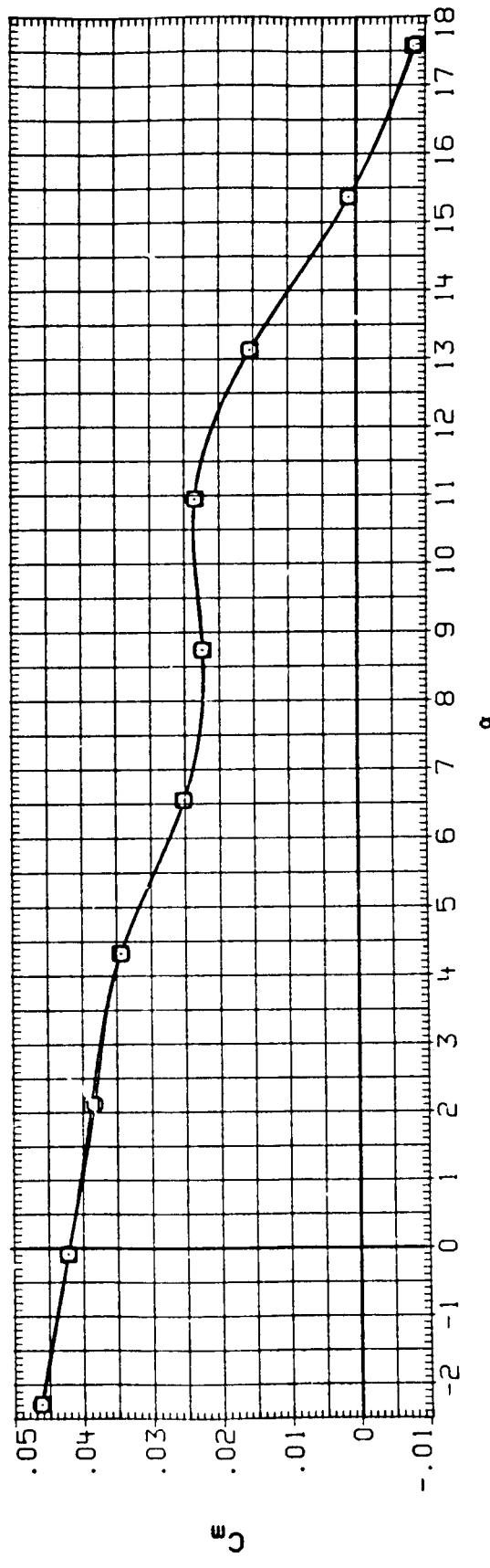
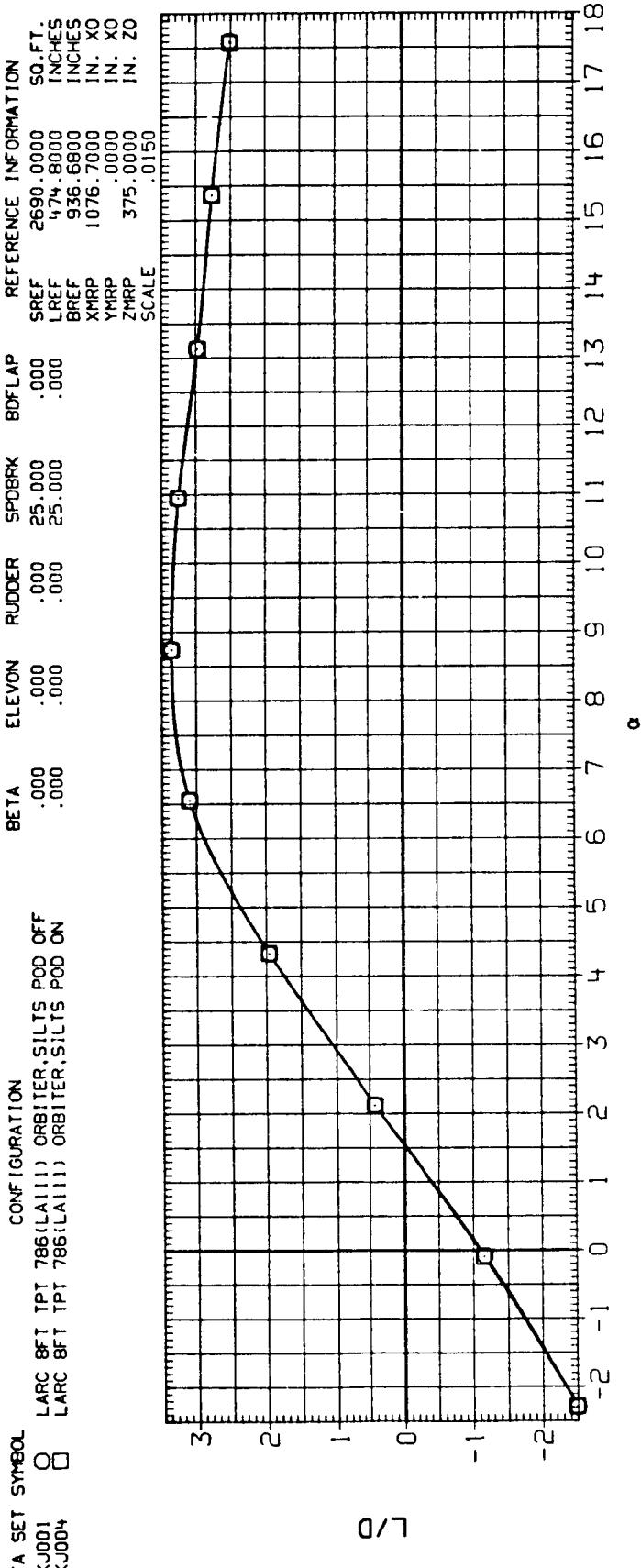


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OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A) MACH = .80

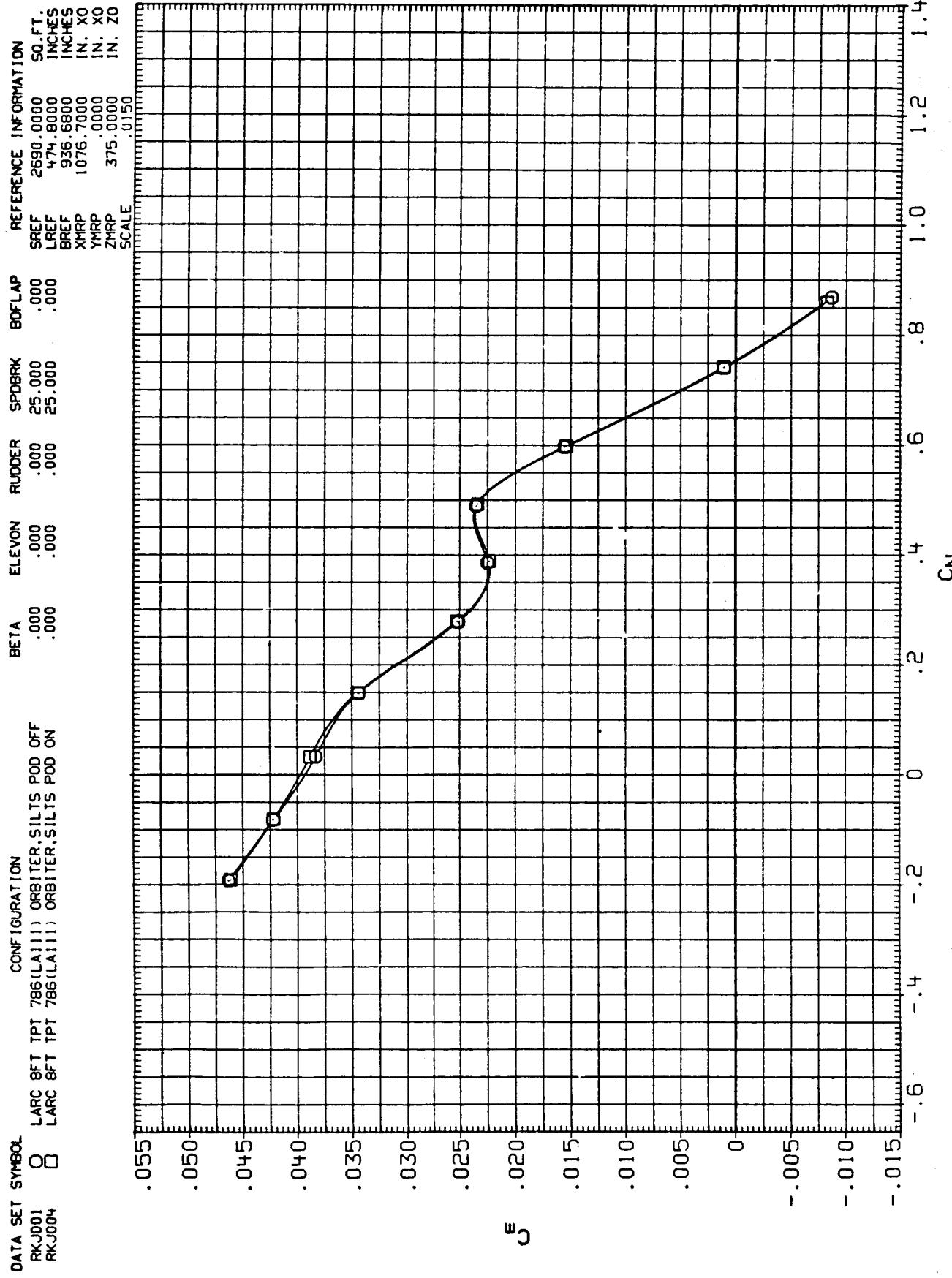


FIGURE 4. EFFECT OF SILENT POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

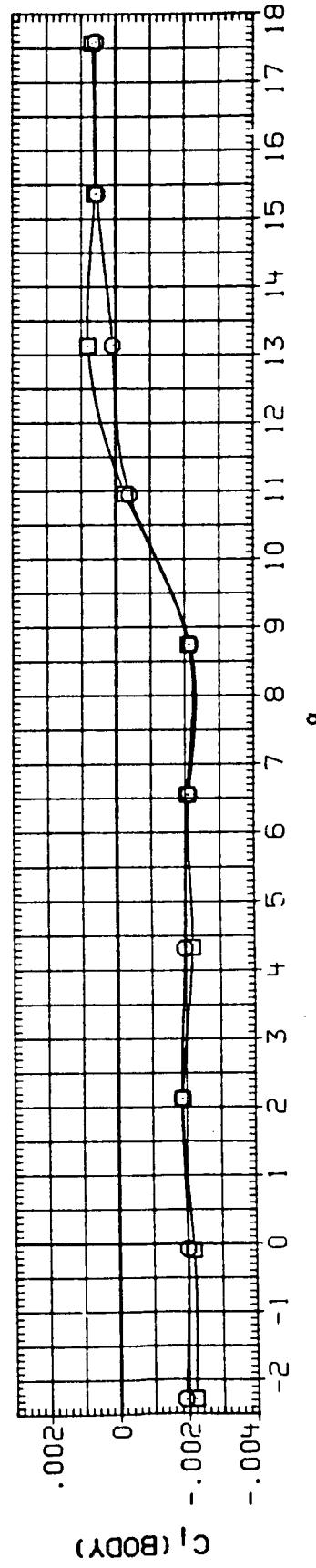
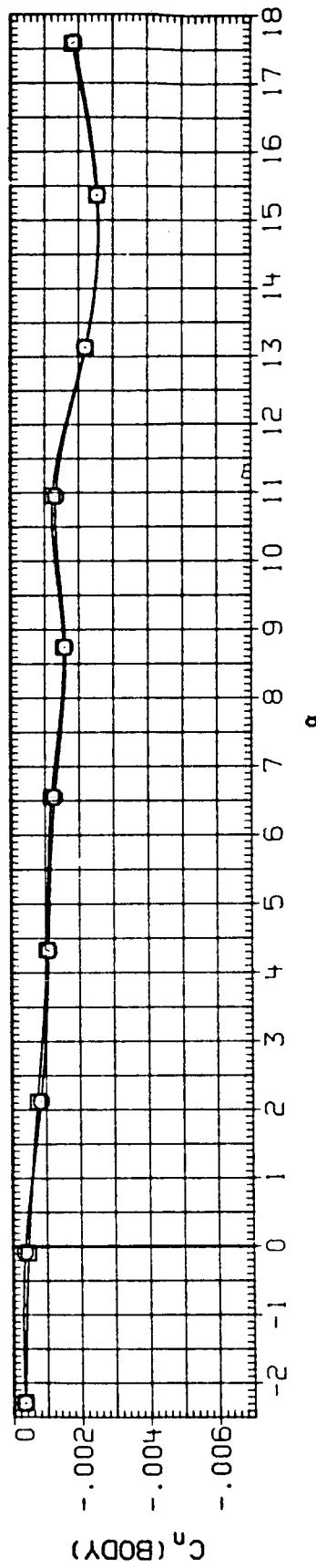
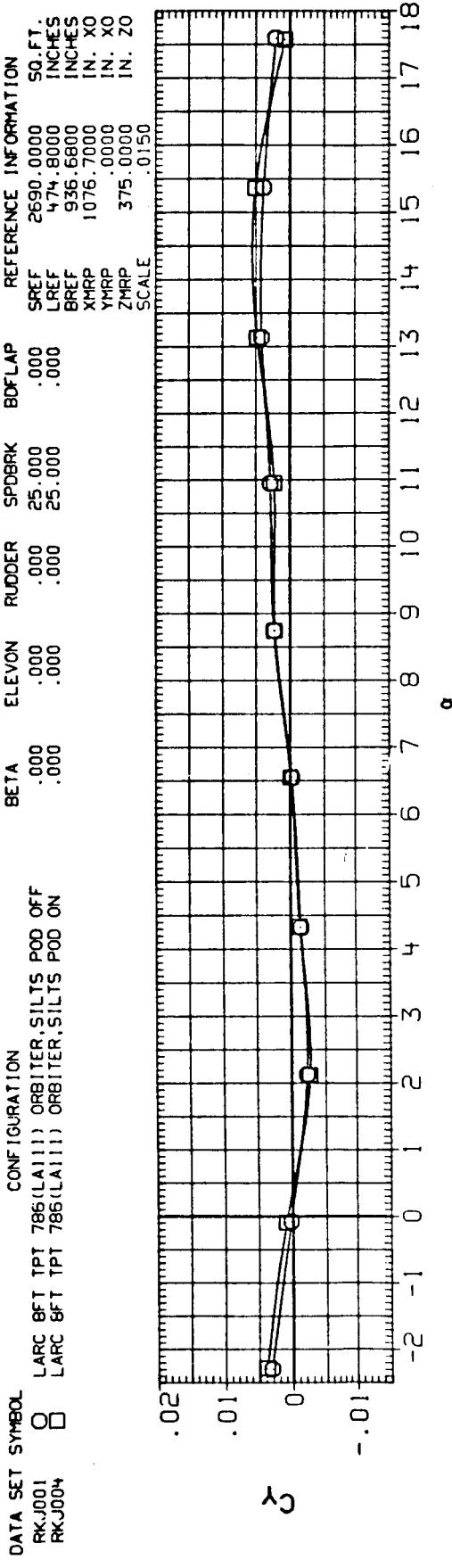


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A) MACH = .80

PAGE 6

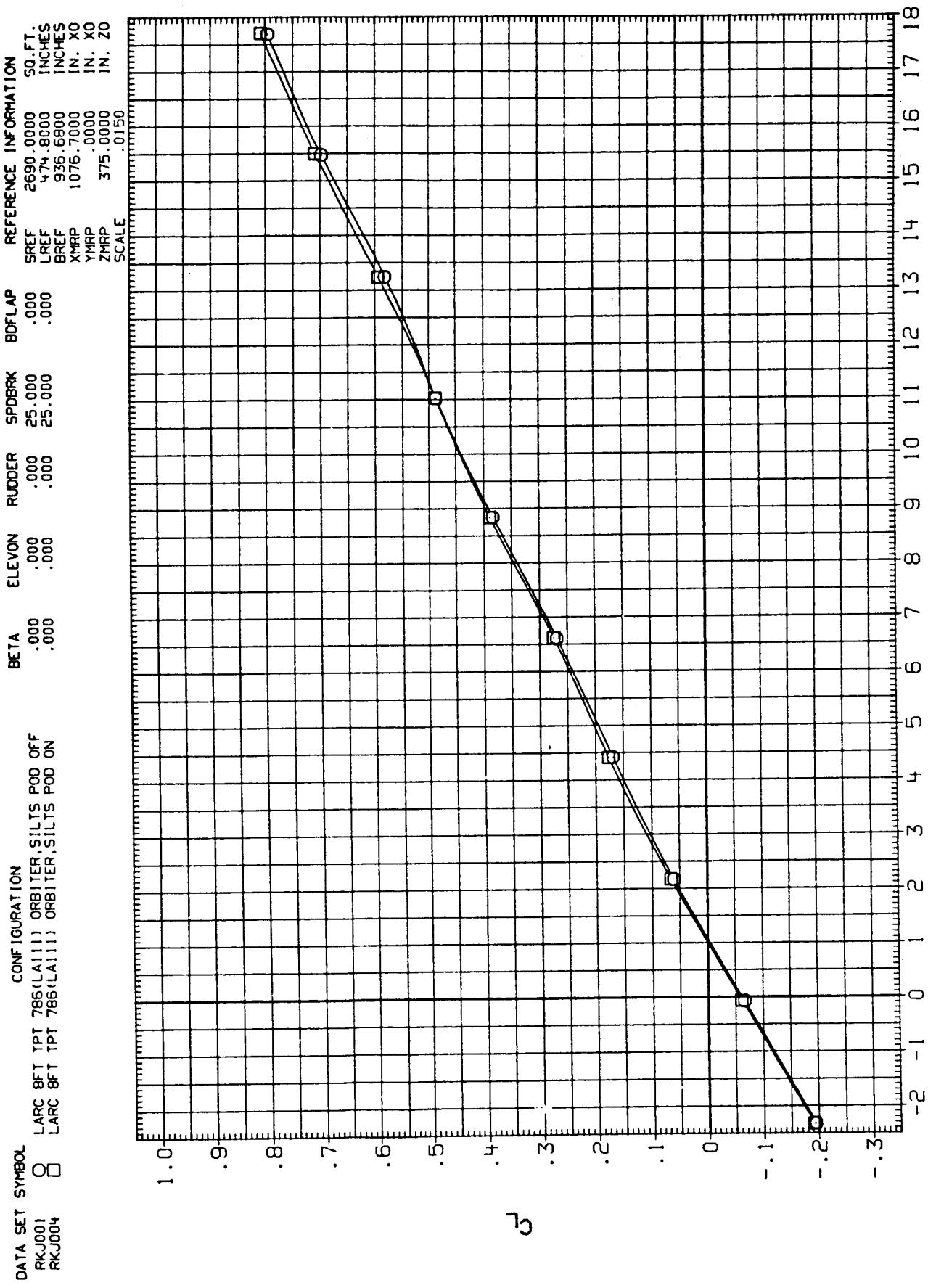


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = .90

PAGE 7

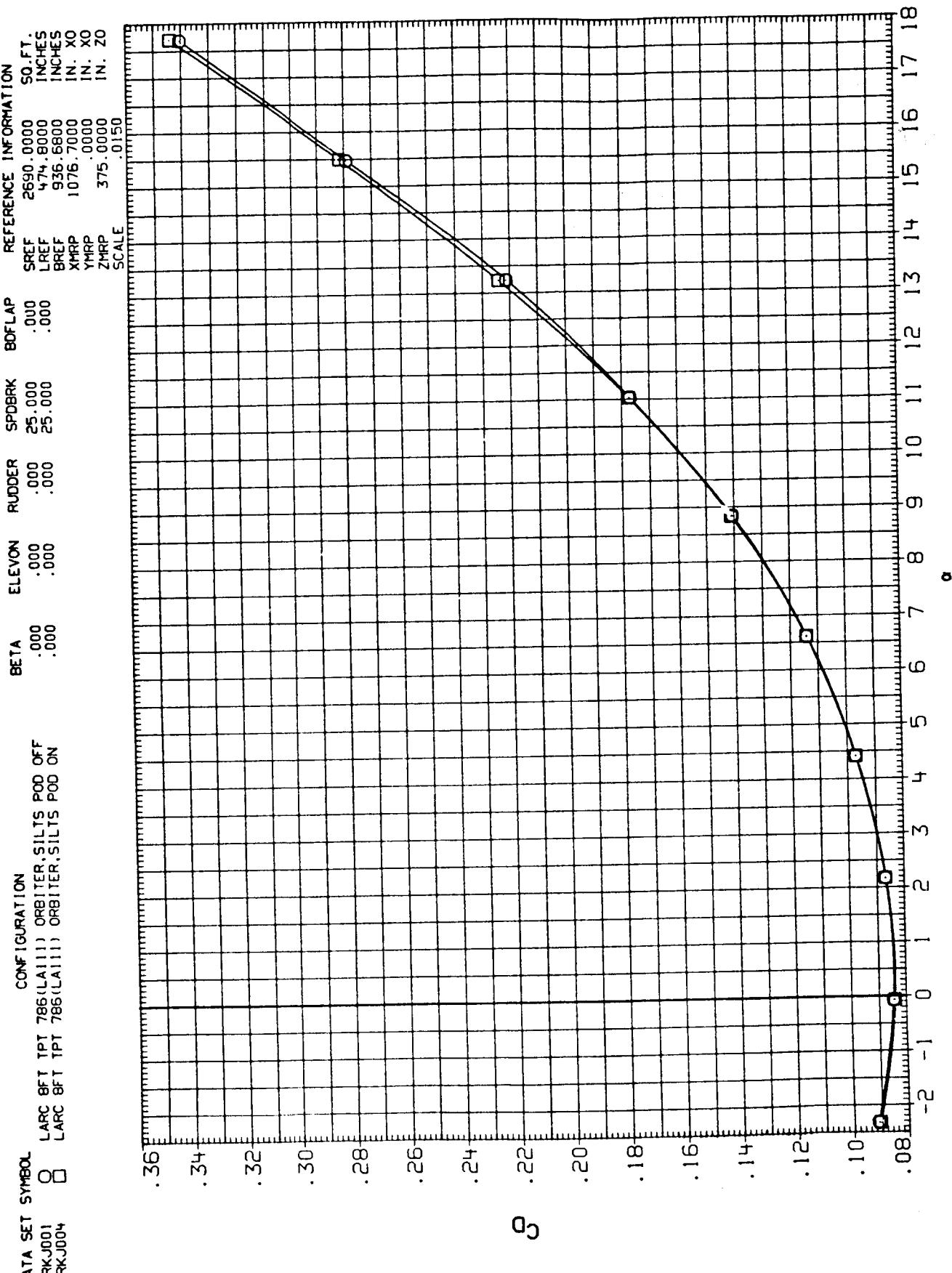


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B) MACH = .90

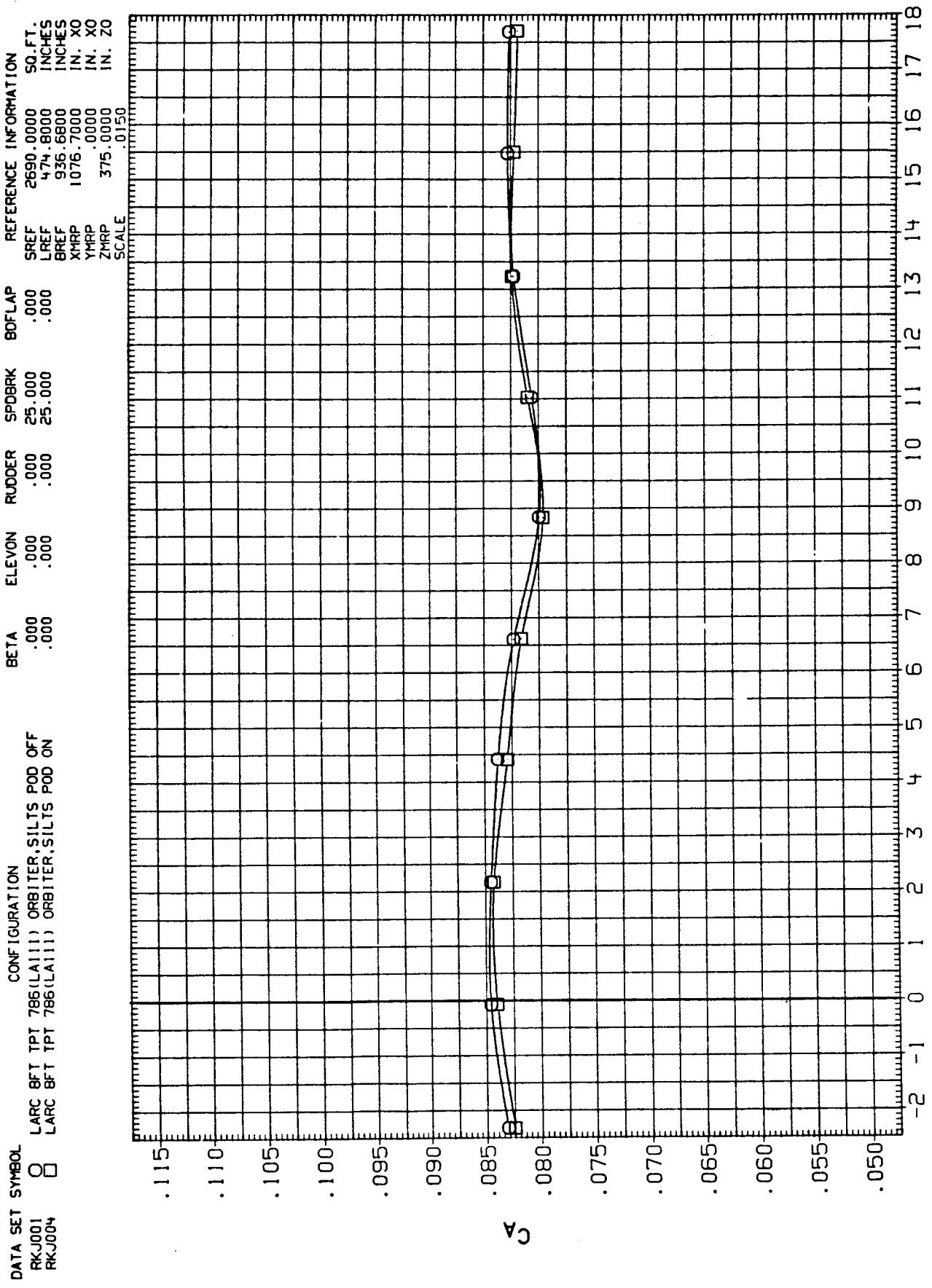


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
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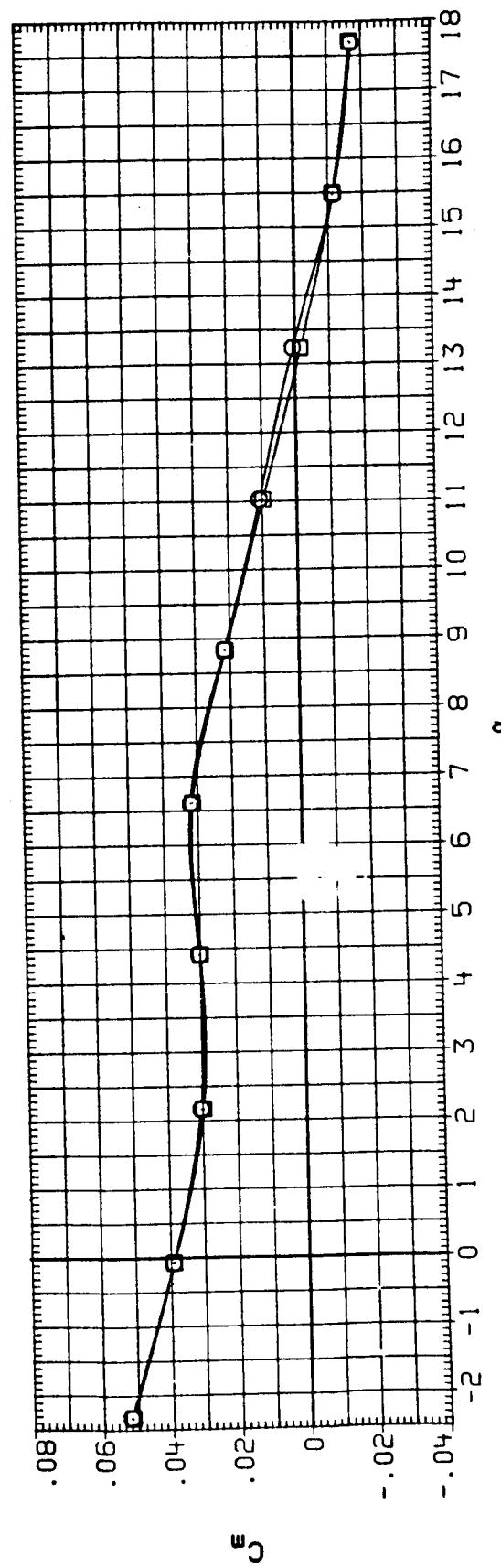
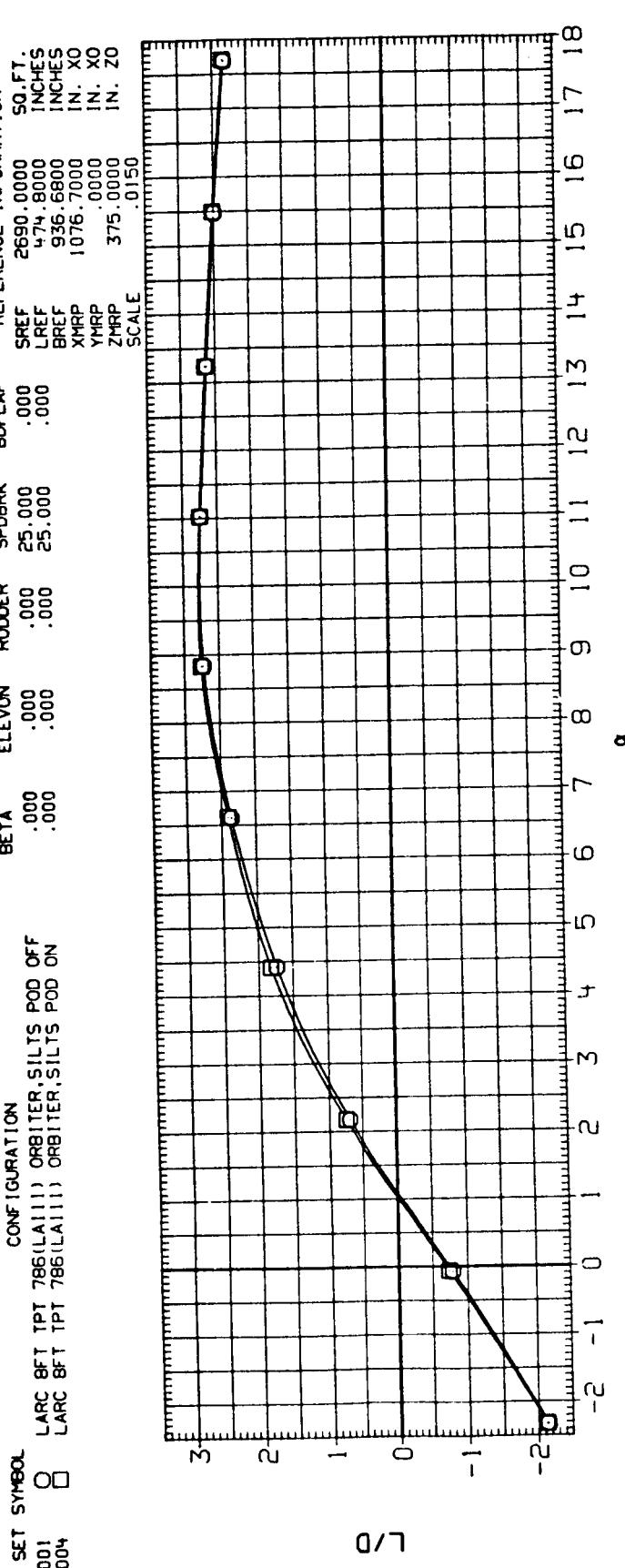


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(B) MACH = .90

PAGE 10

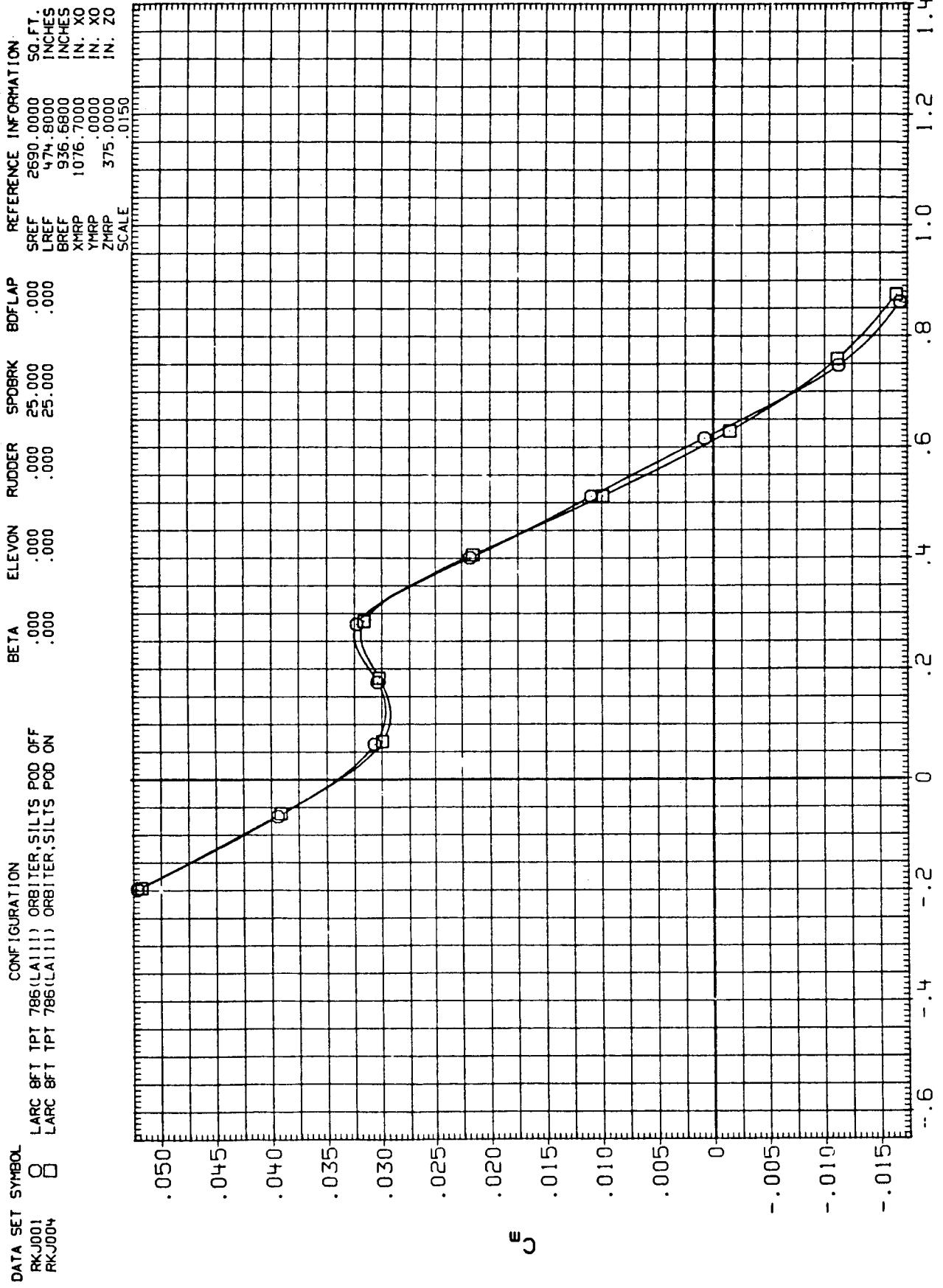


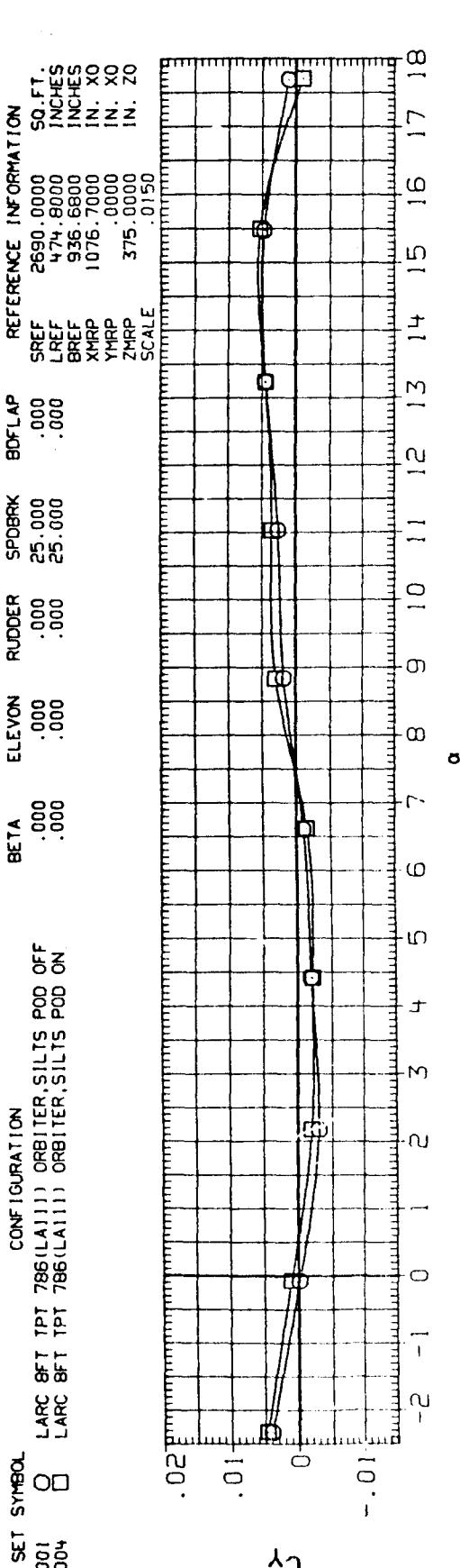
FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B) MACH = .90

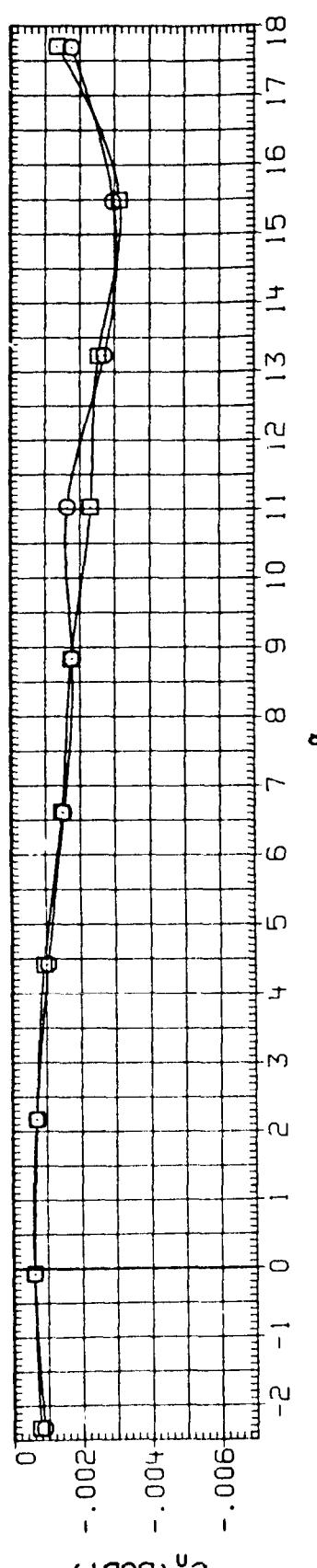
PAGE 11

DATA SET SYMBOL

RKJ001 O LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF
RKJ004 □ LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON



$C_y (\text{BODY})$



$C_a (\text{BODY})$

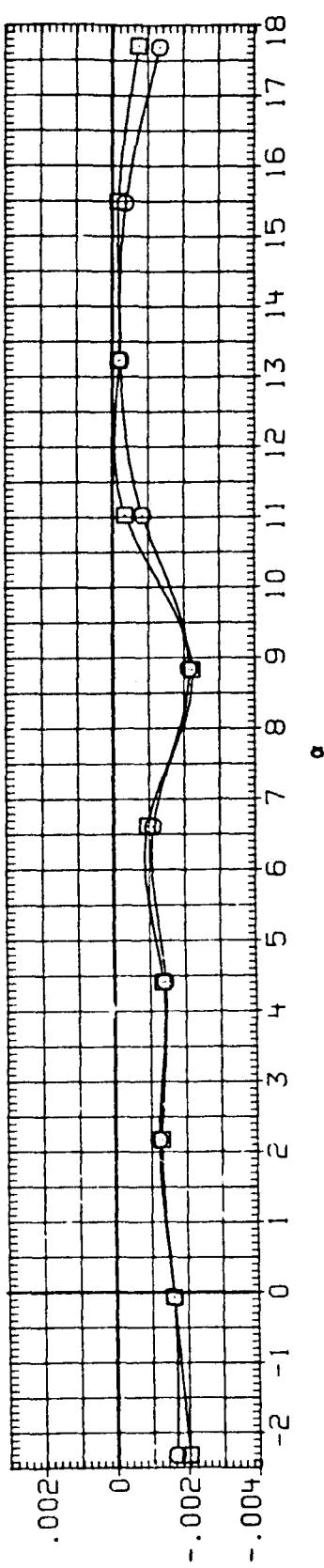


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES
(B) MACH = .90

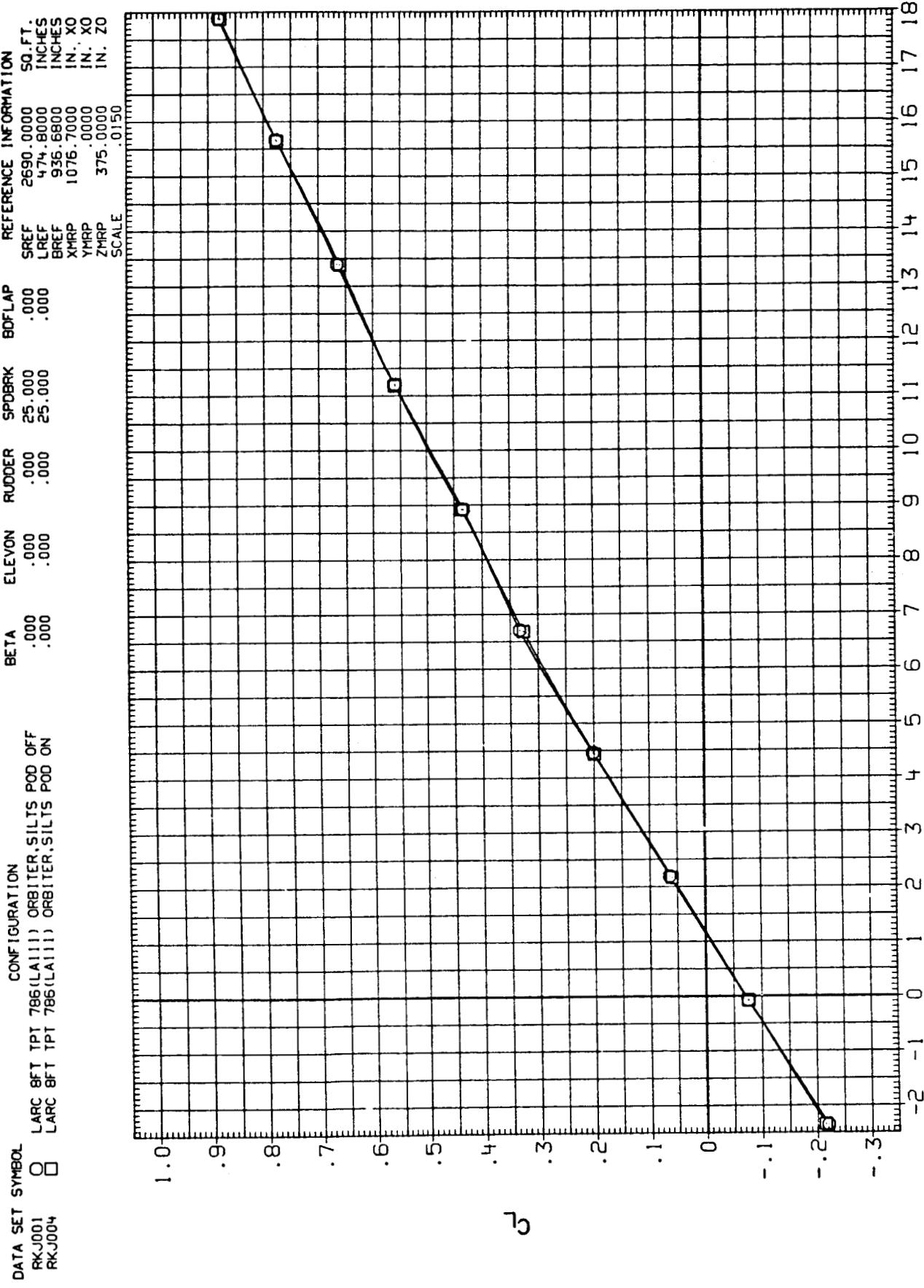


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C) MACH = .95

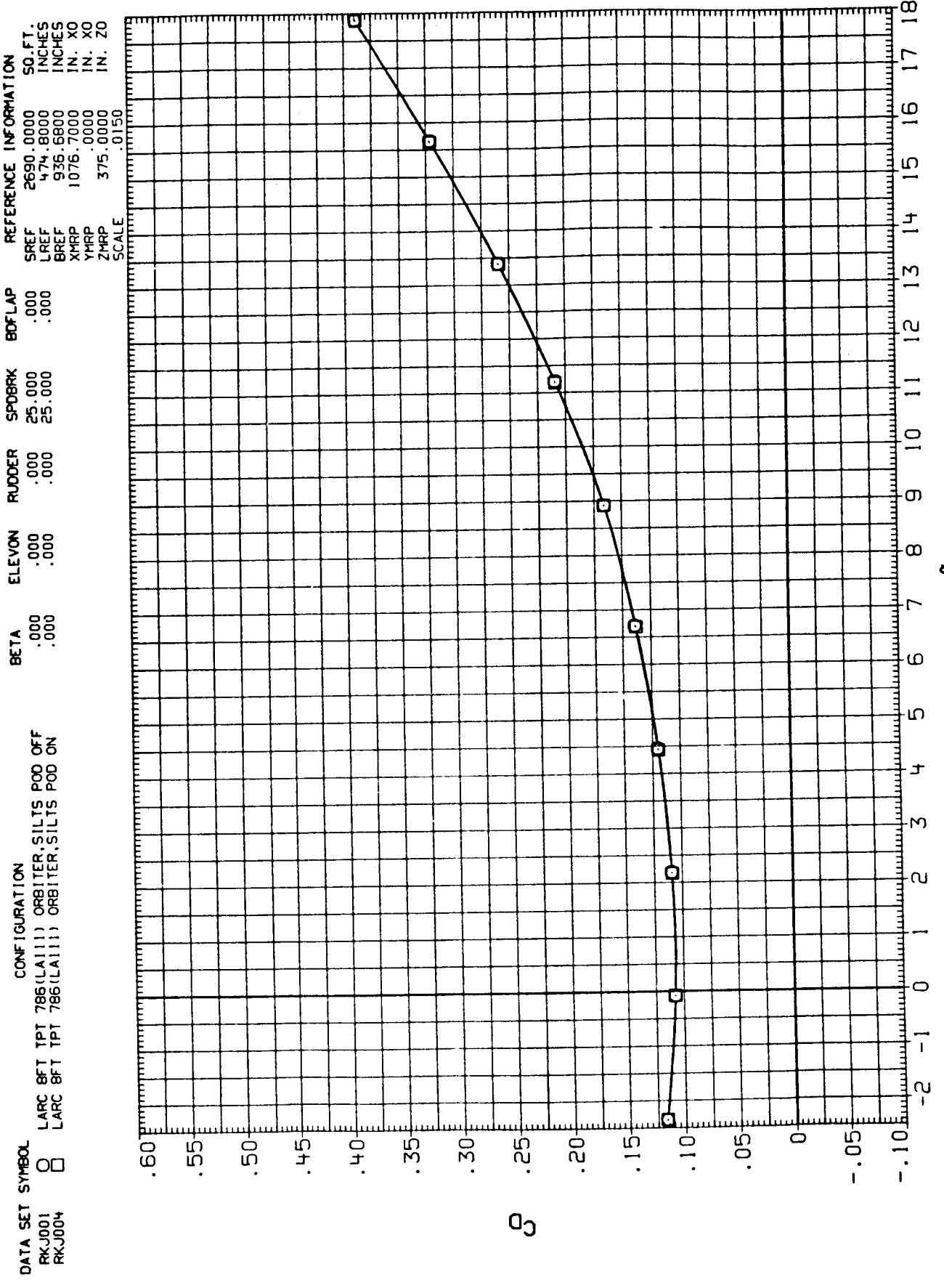


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C) MACH = .95

PAGE 14

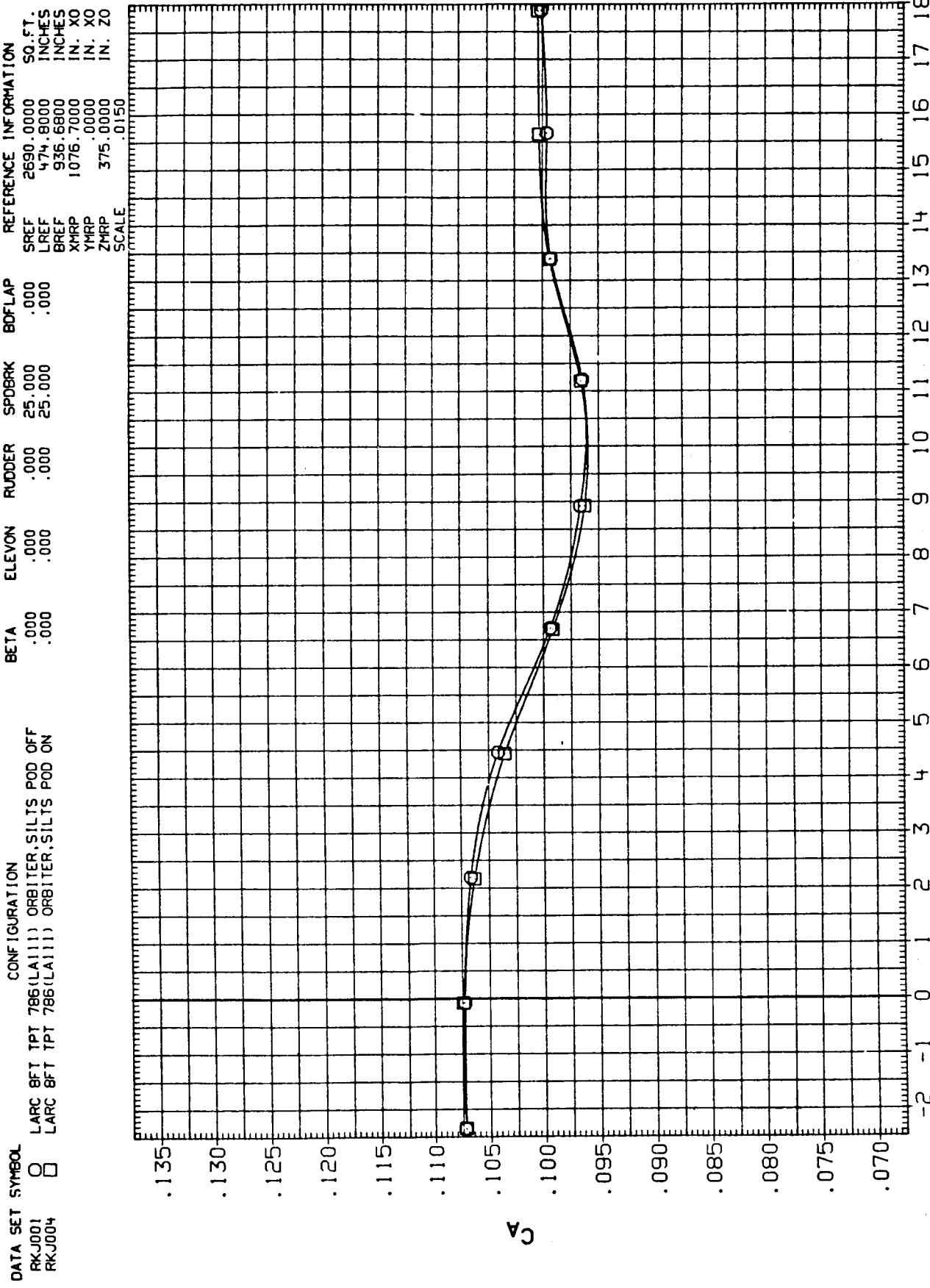


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
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(C) MACH = .95

PAGE 15

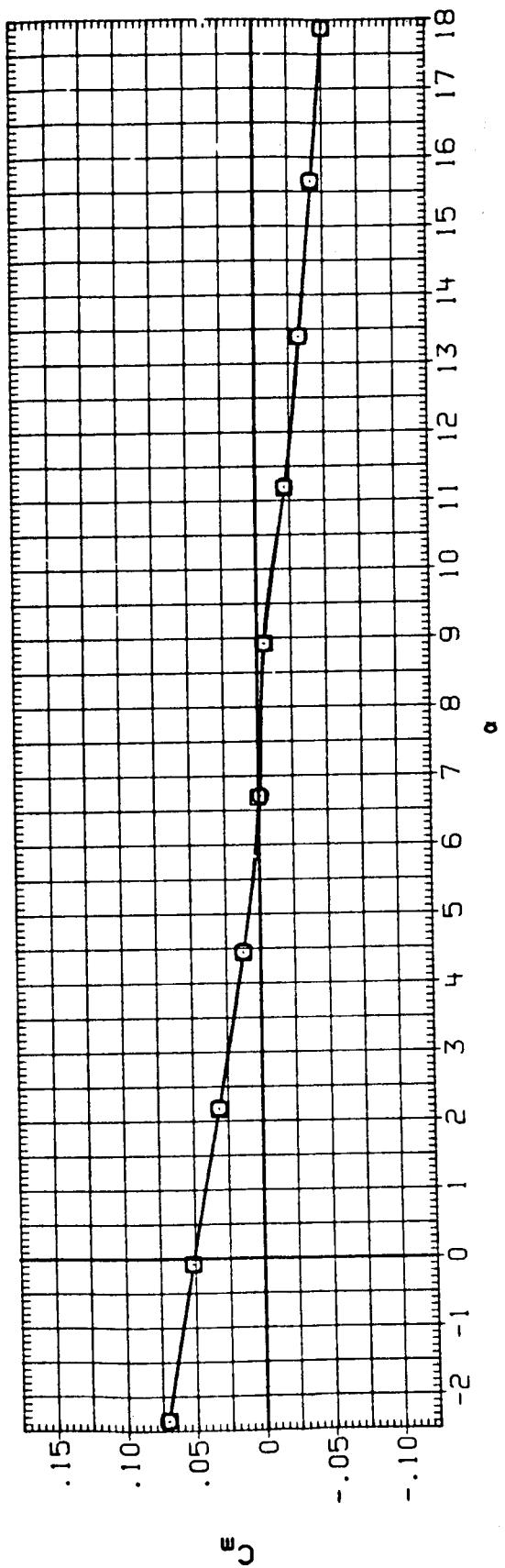
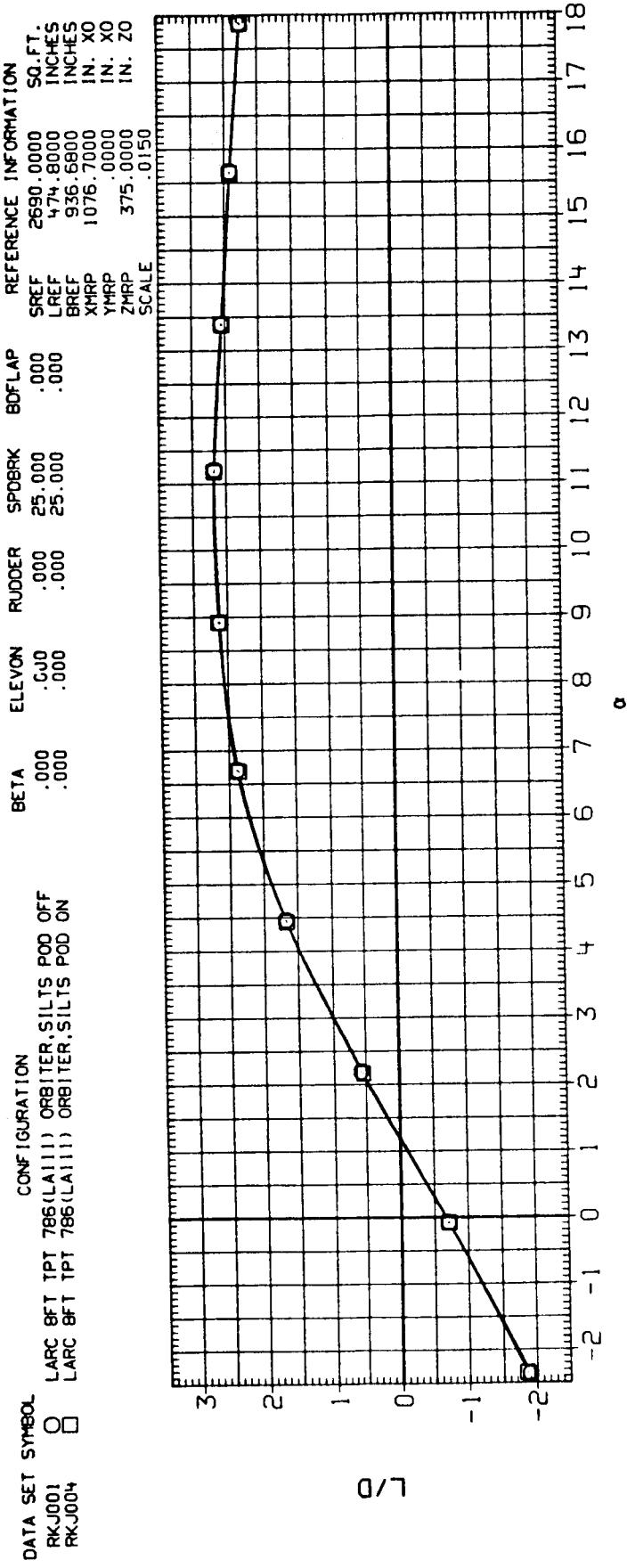


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C) MACH = .95

PAGE 16

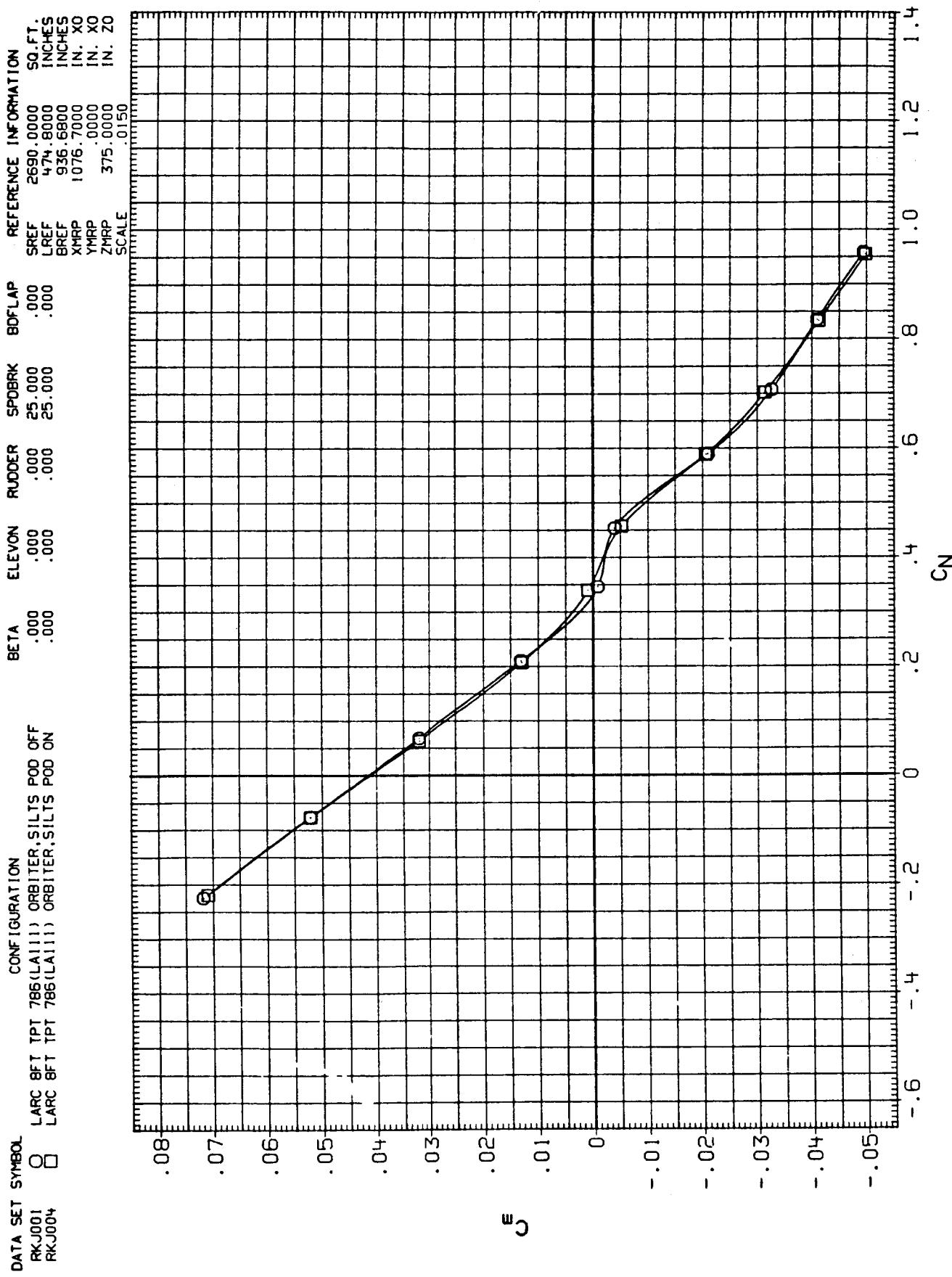


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

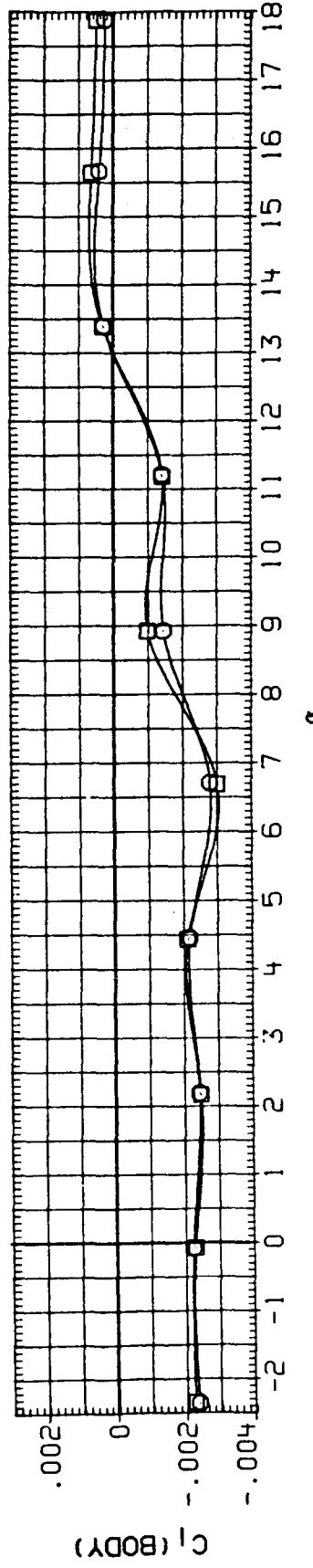
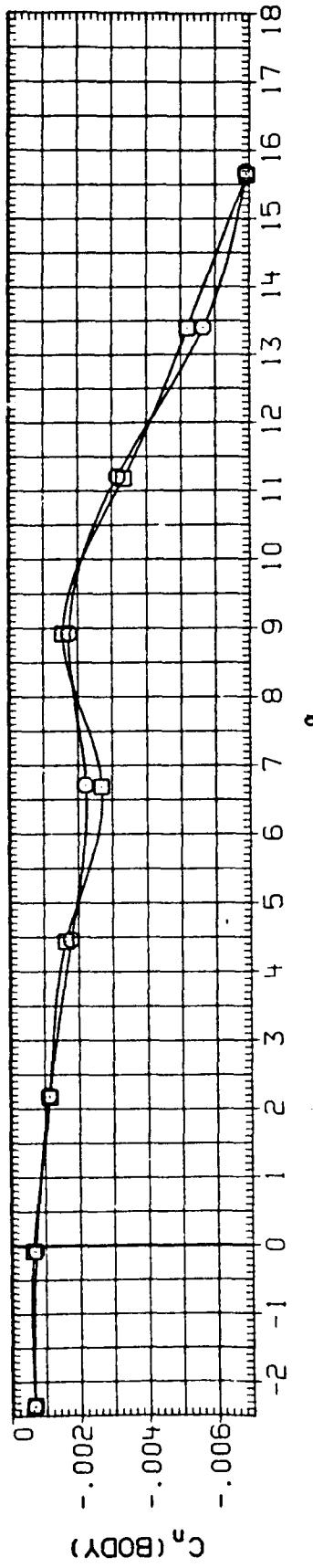
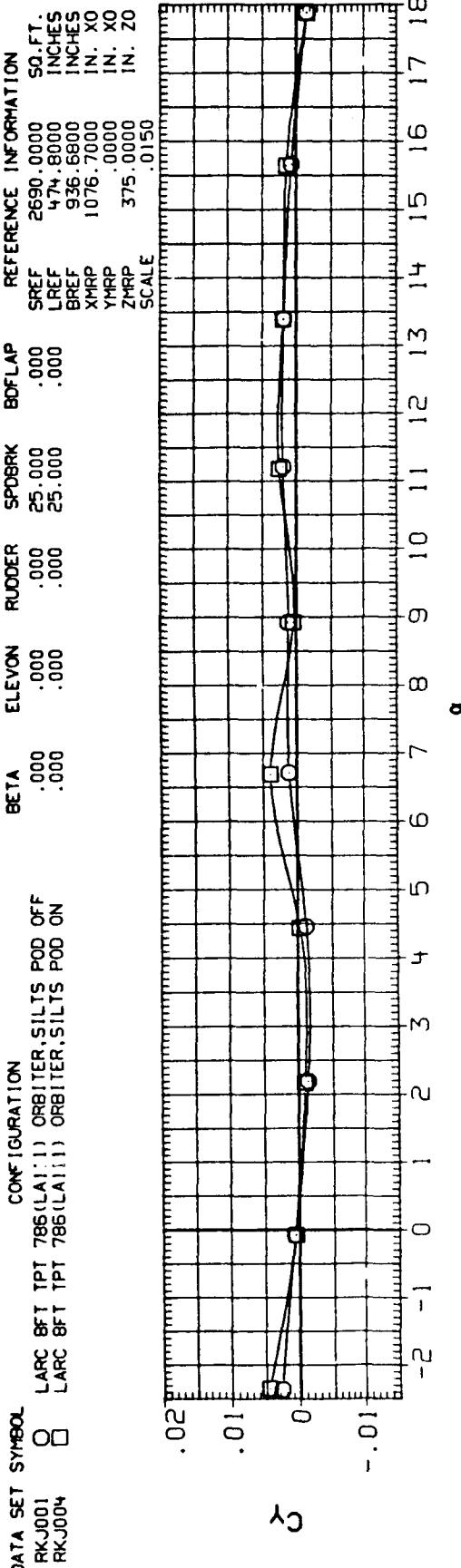


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C)_{MACH} = .95
PAGE 18

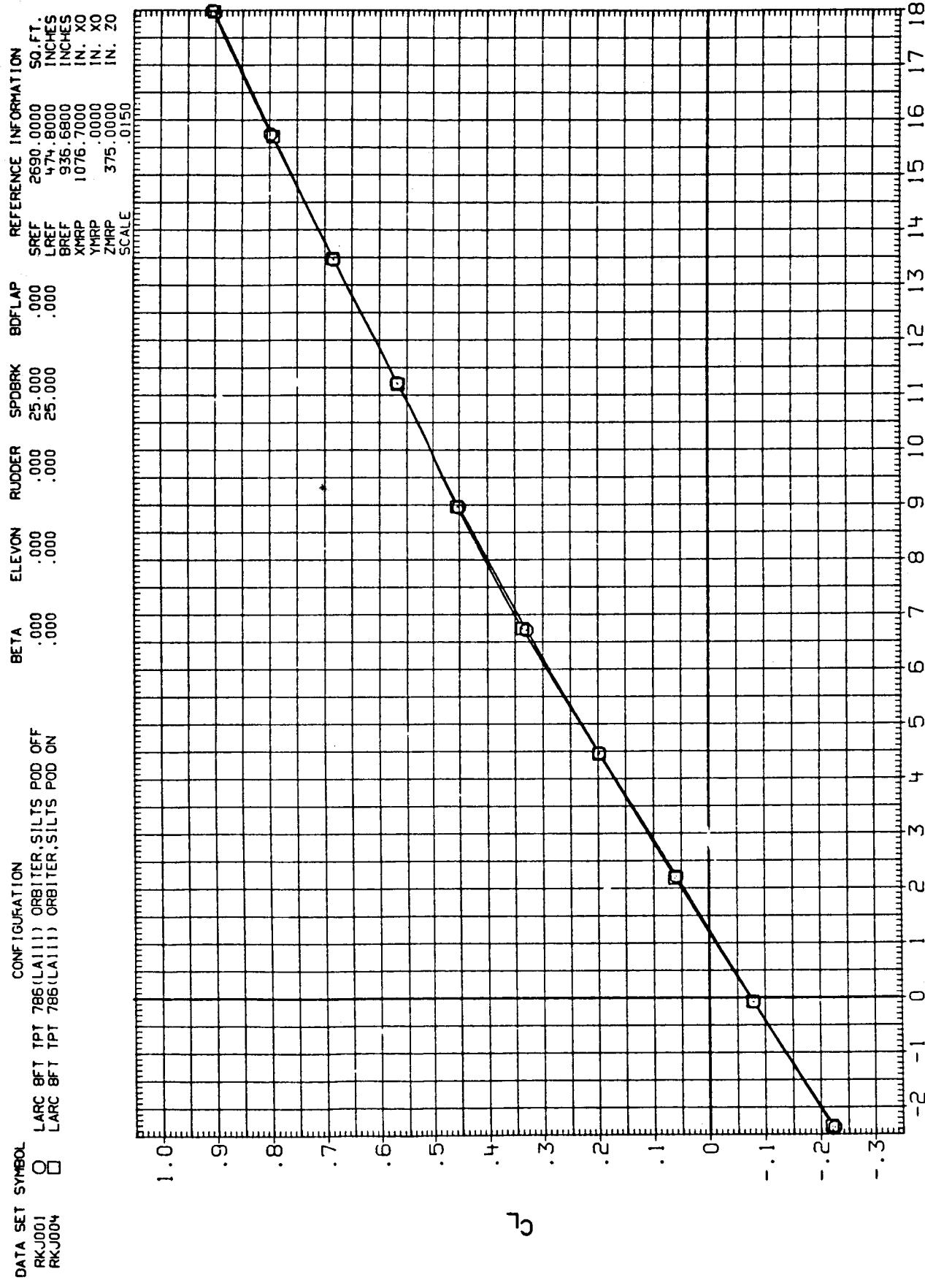


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(D)MACH = .98

PAGE 19

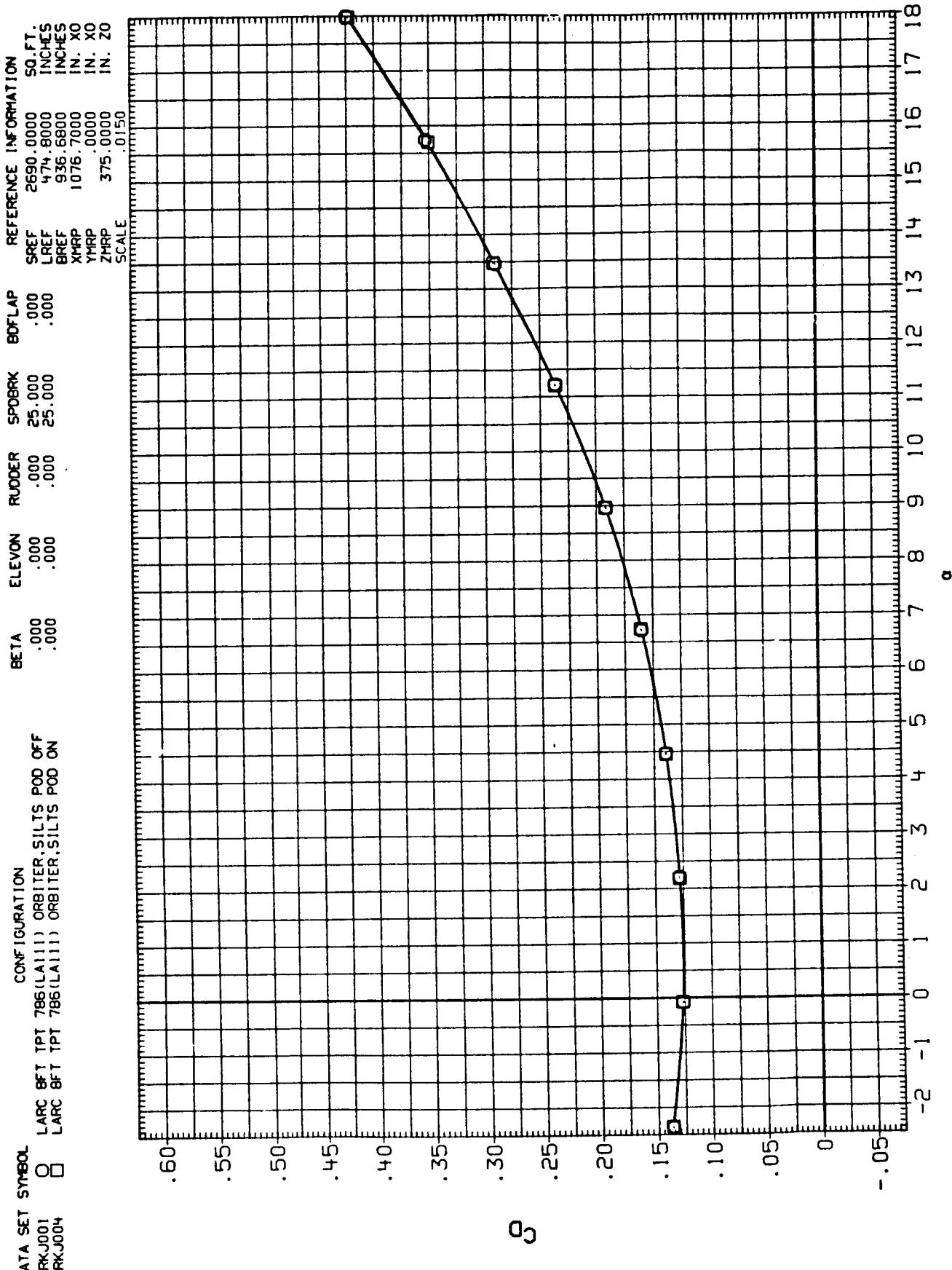


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(D) MACH = .98

PAGE 20

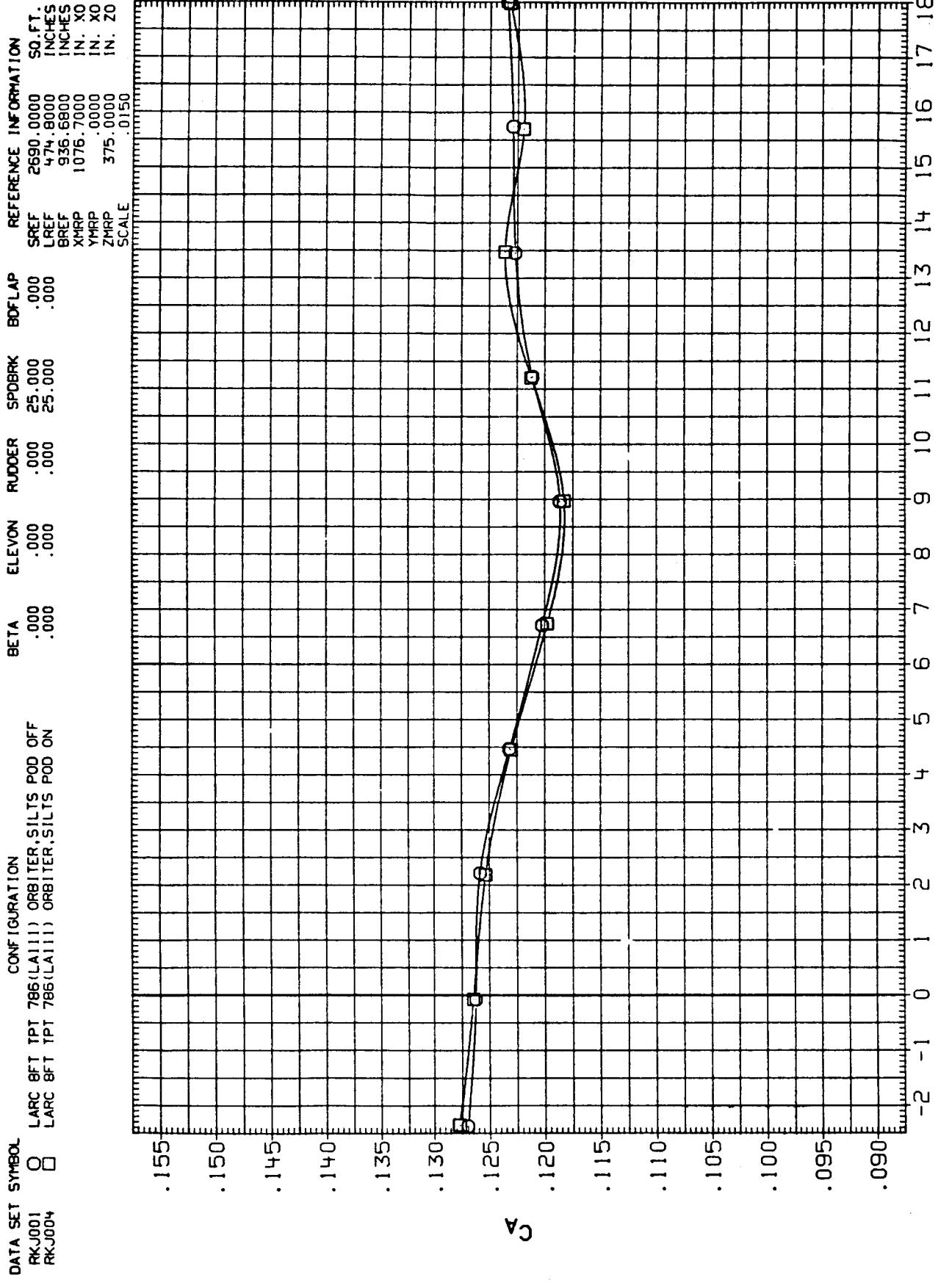


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(D) MACH = .98

PAGE 21

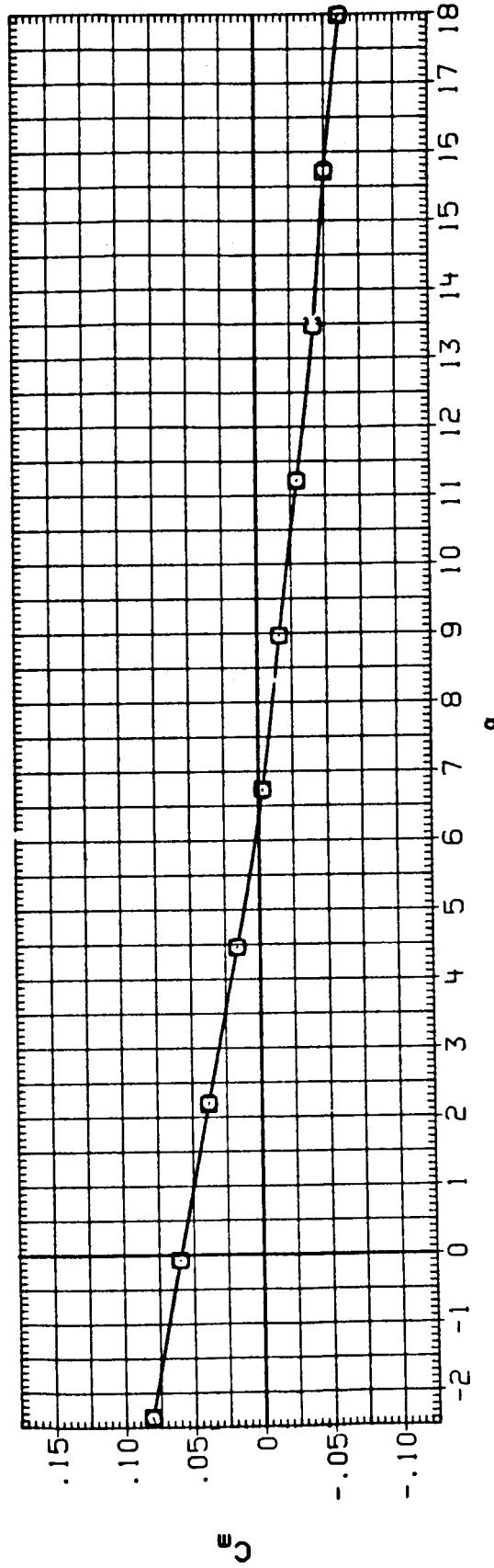
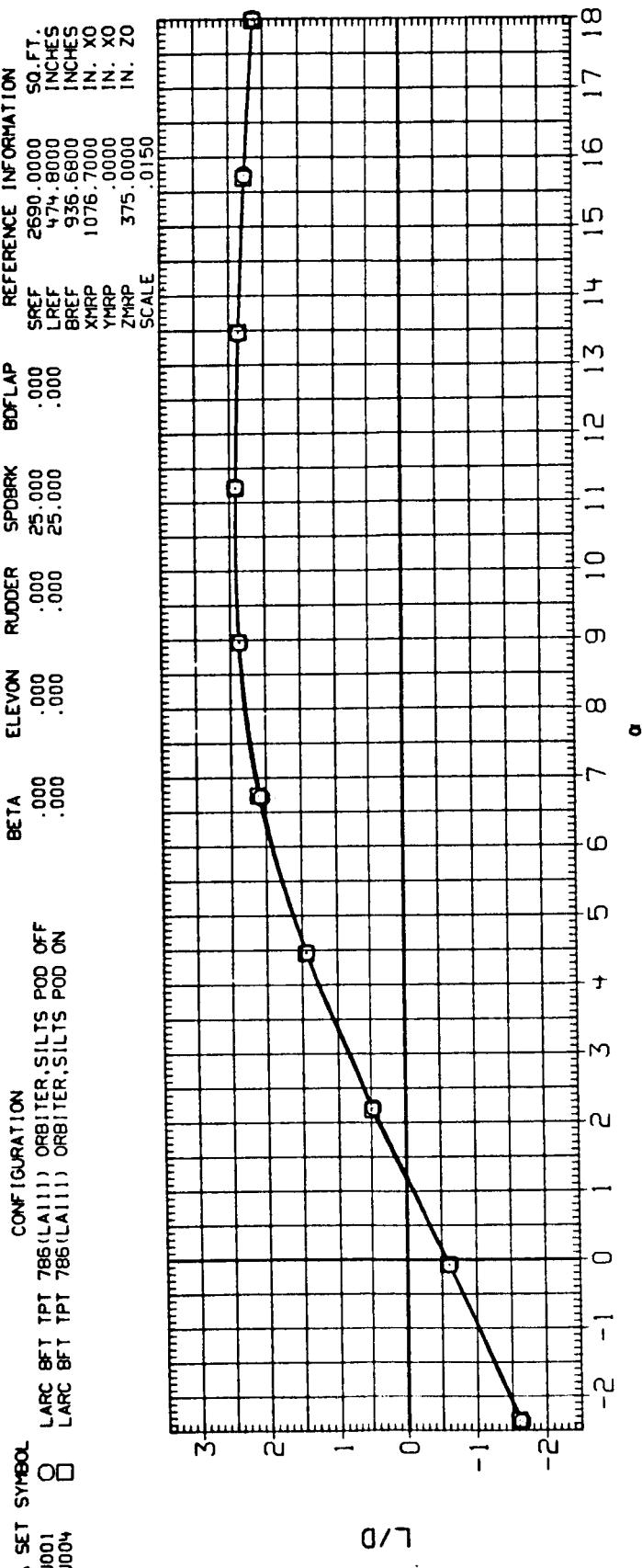


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OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(D) MACH = .98

PAGE 22

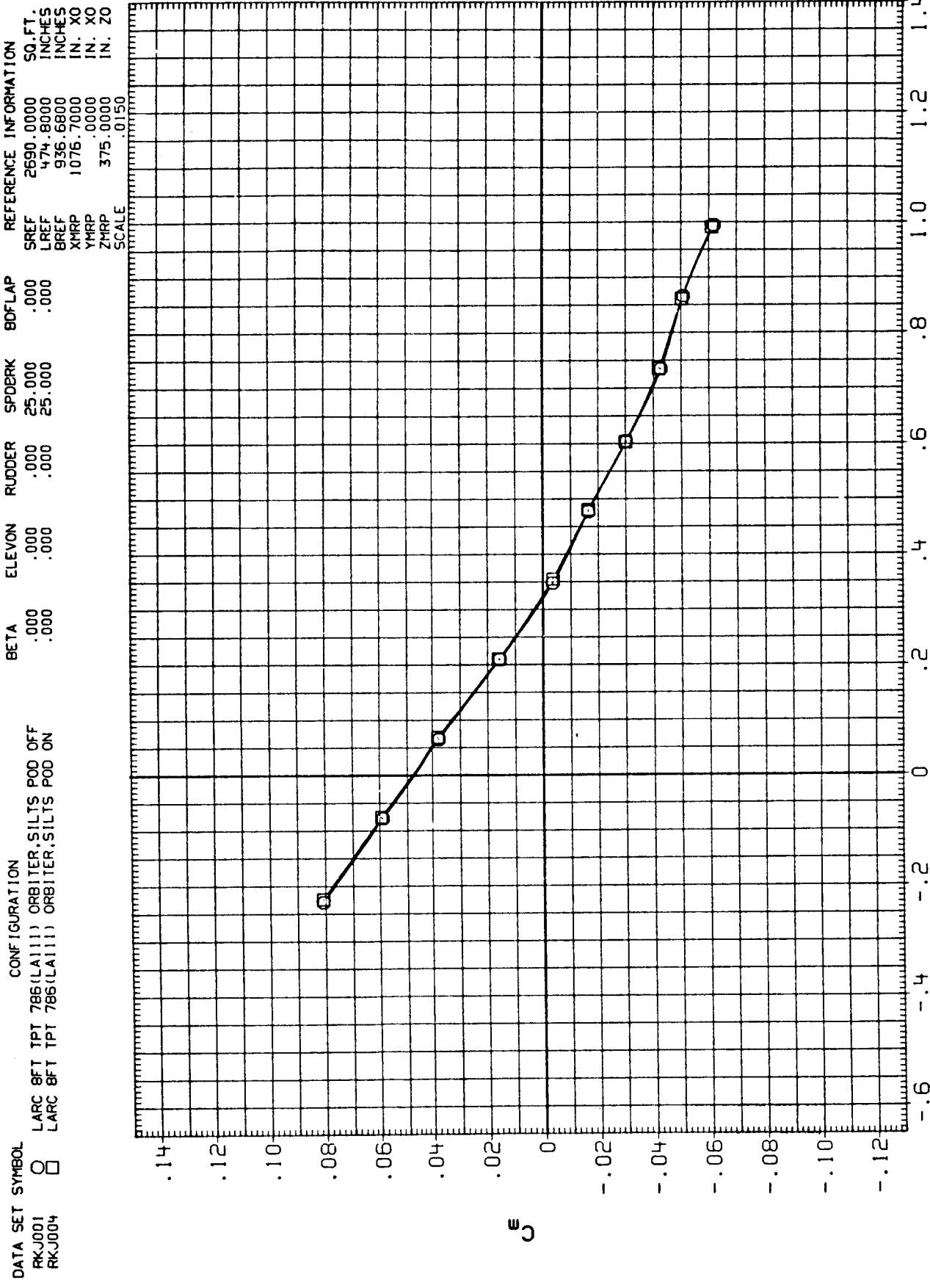


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(D) MACH = .98

C_N

PAGE 23

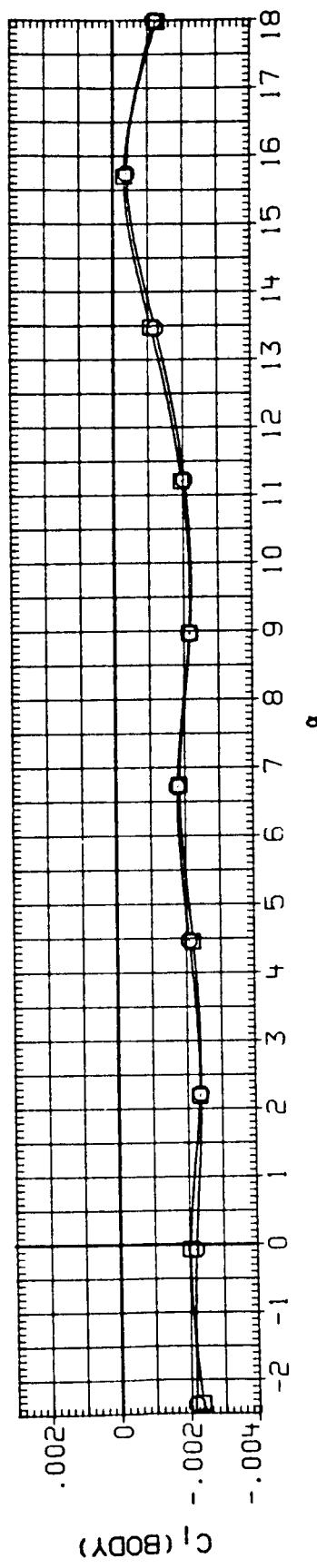
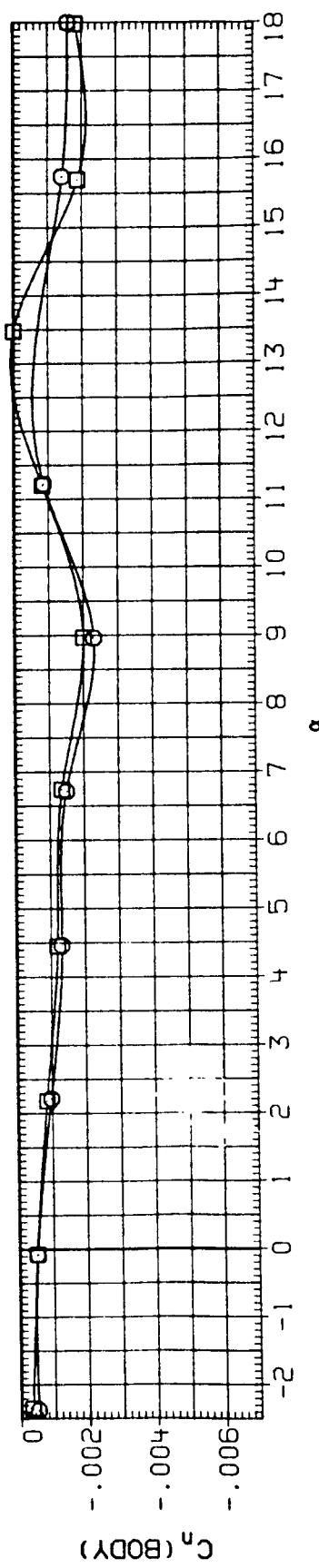
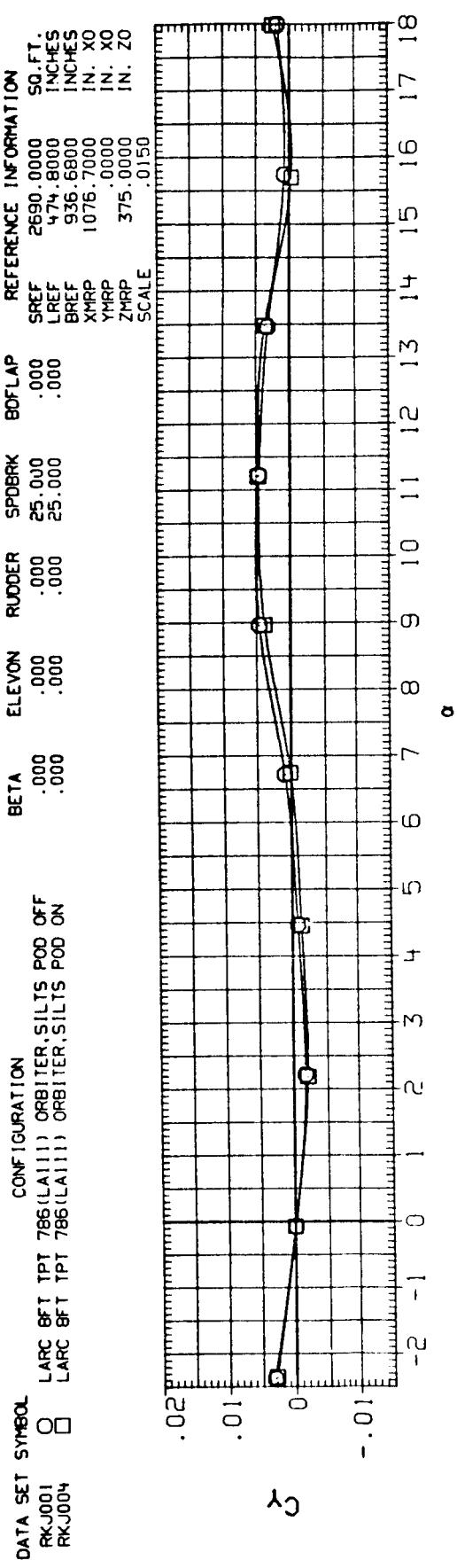


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(D)MACH = .98

PAGE 24

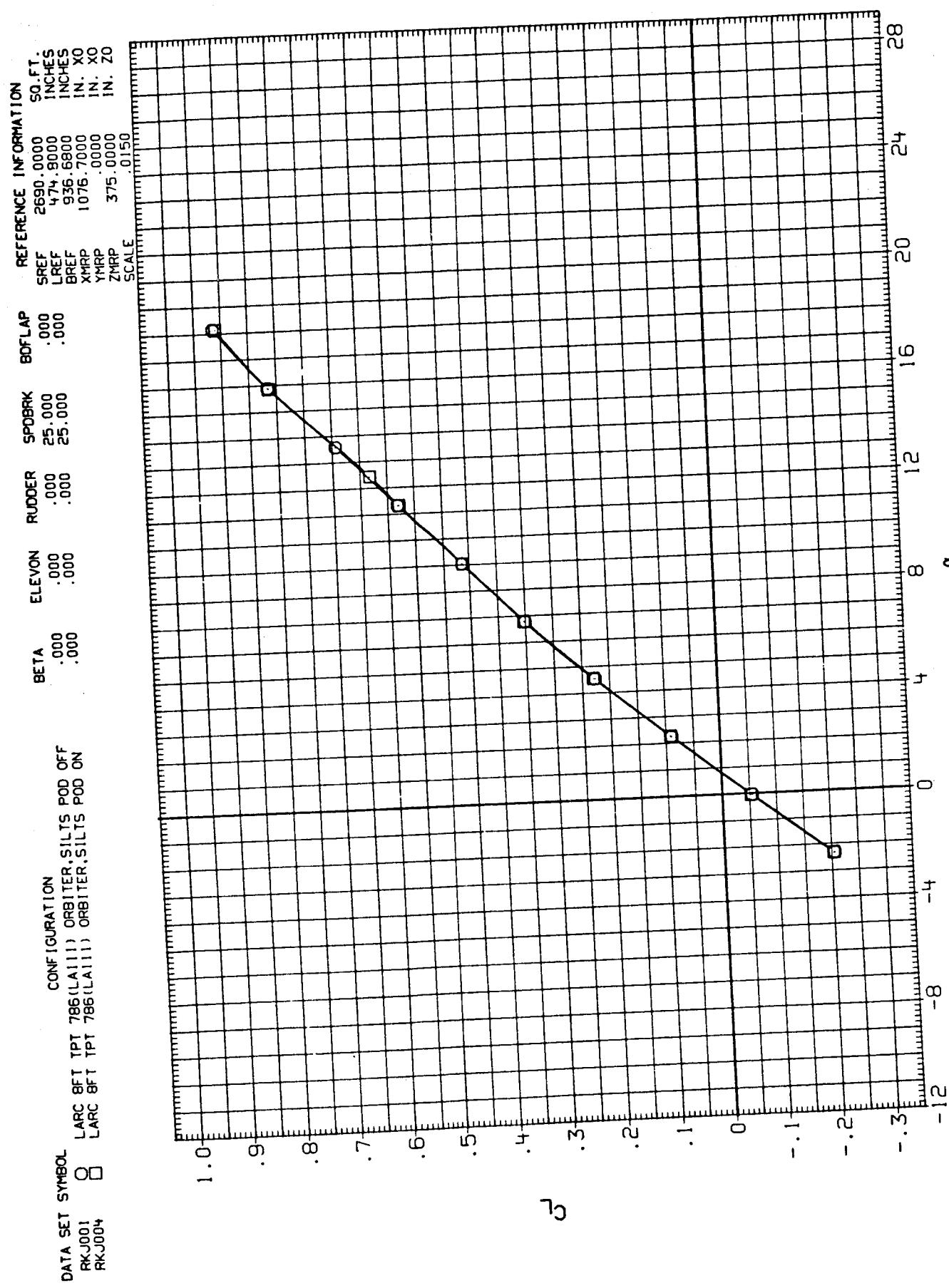


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

PAGE 25

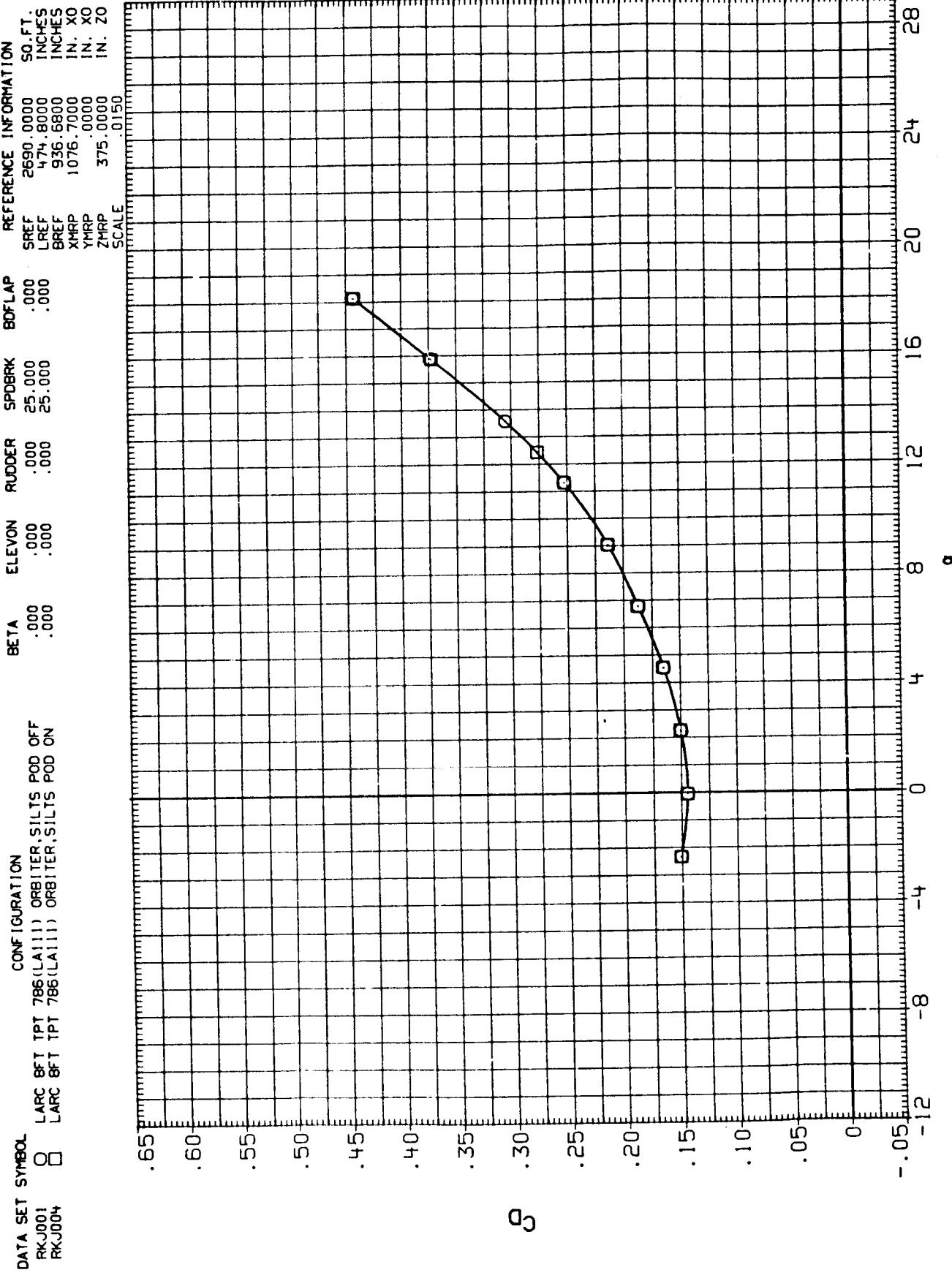


FIGURE 4. EFFECT OF SAILS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(E) MACH = 1.12

PAGE 26

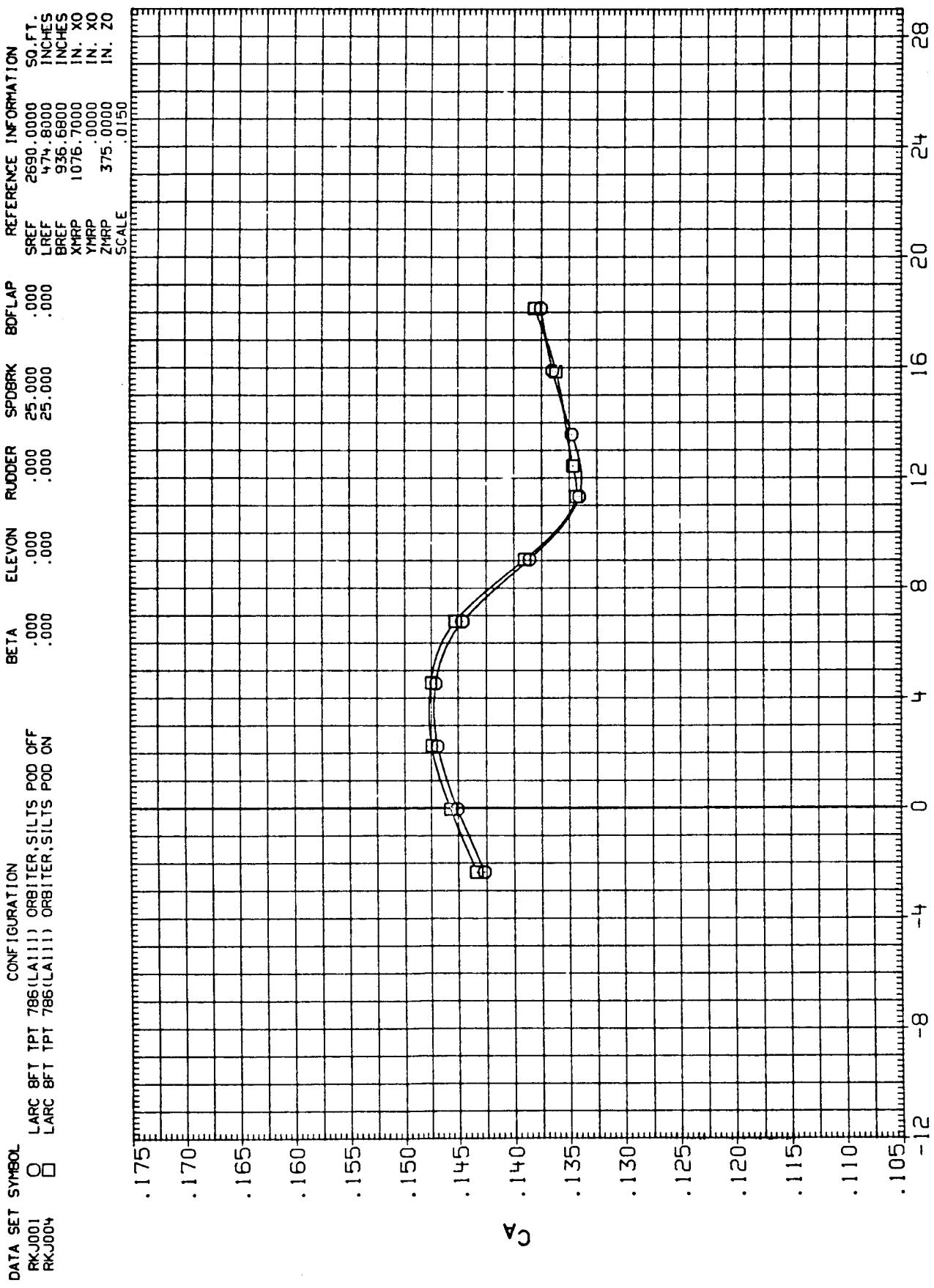


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

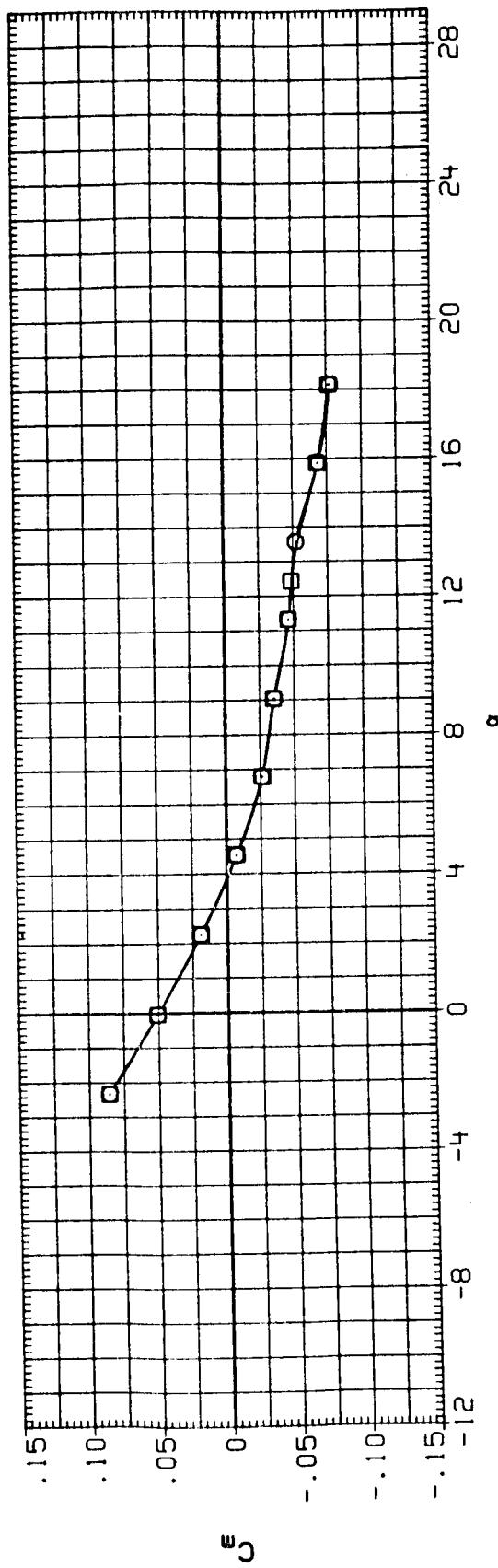
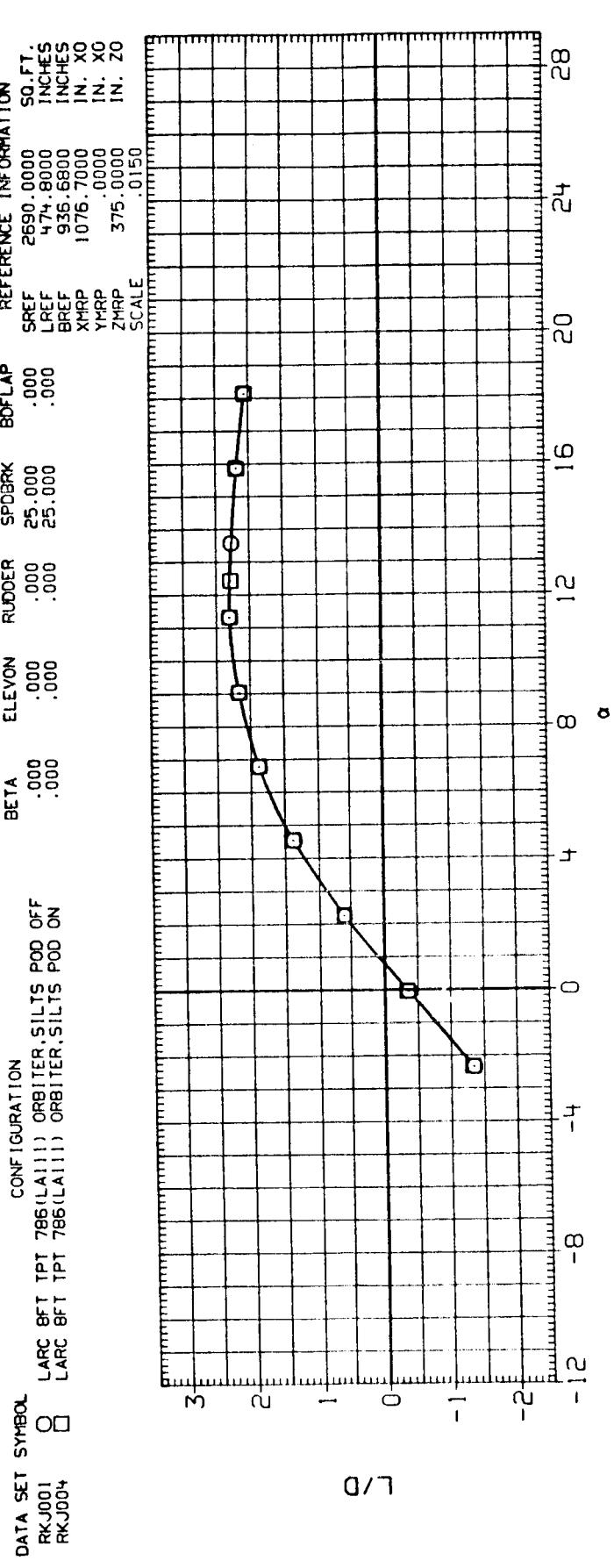


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(E) MACH = 1.12

PAGE 28

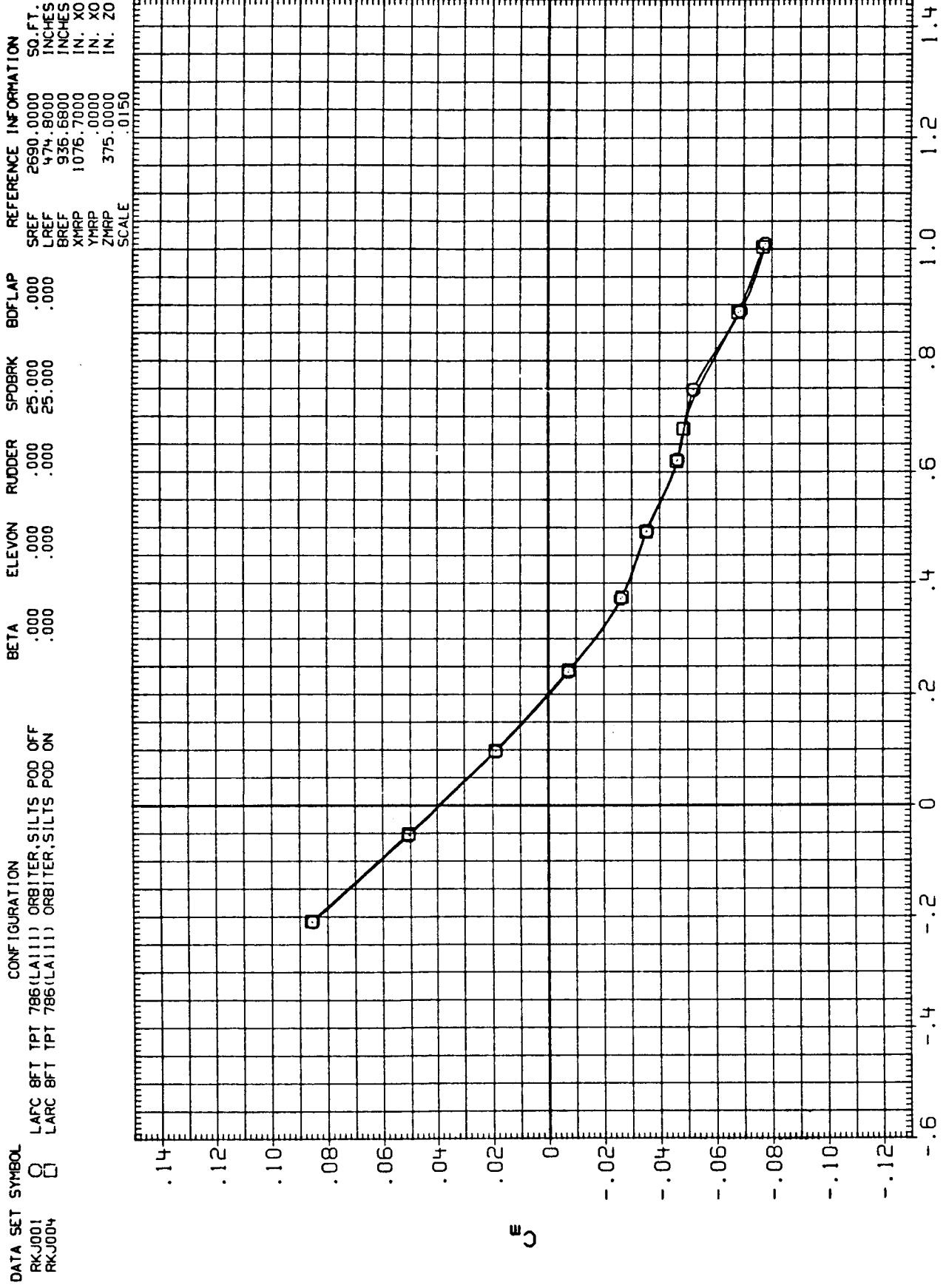


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

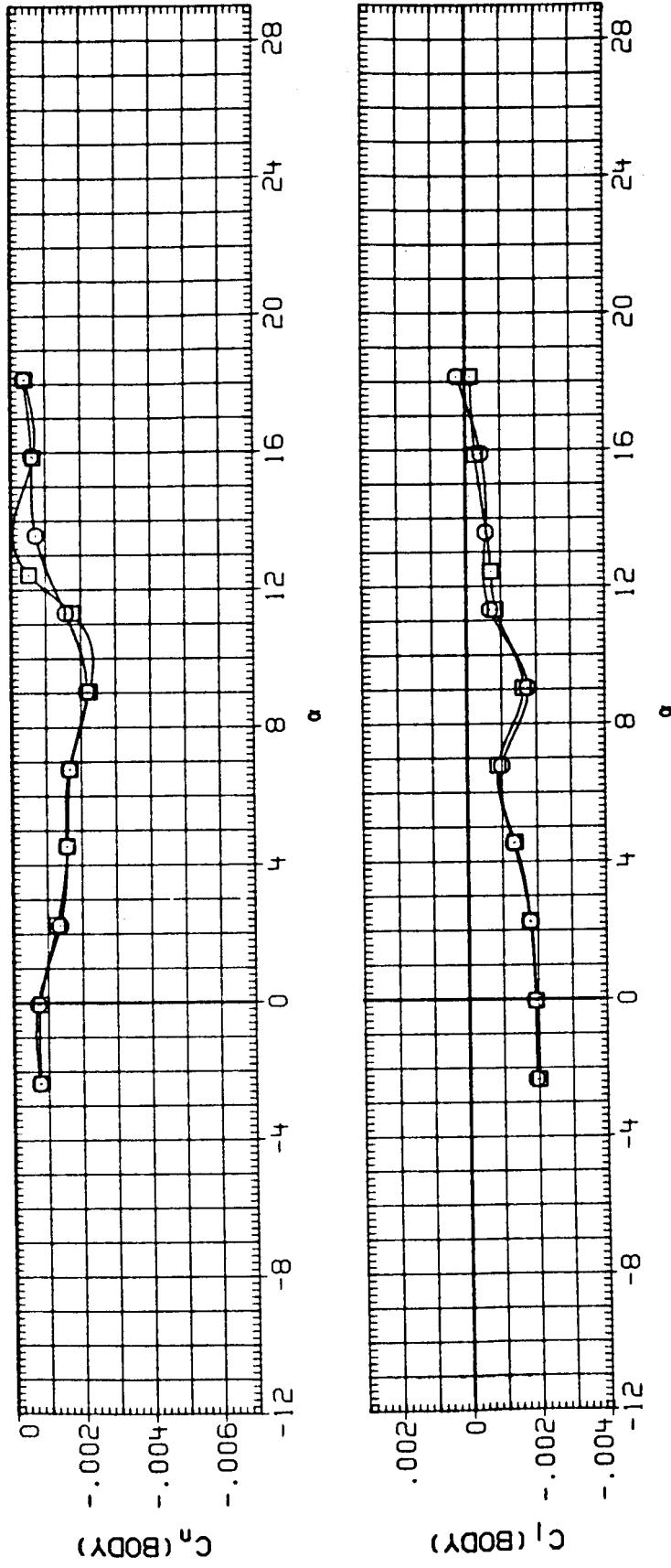
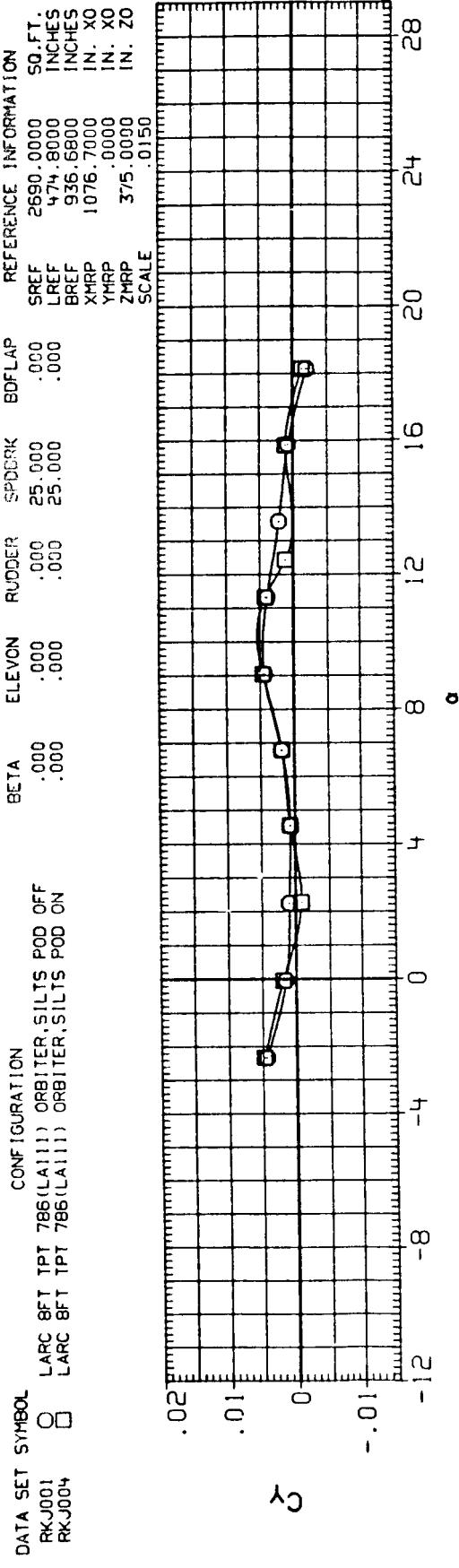


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(E)MACH = 1.12

PAGE 30

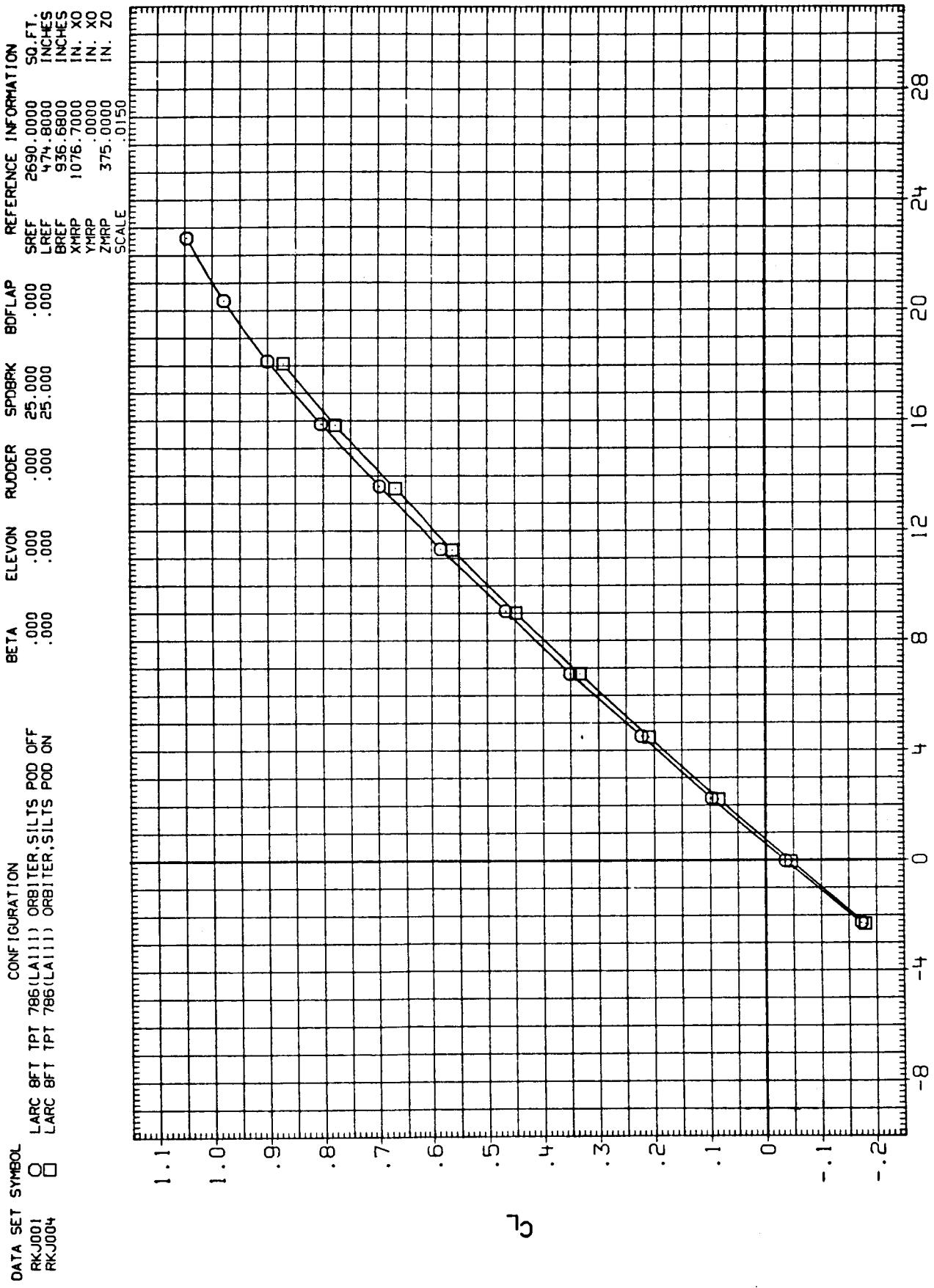


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(F) MACH = 1.20

PAGE 31

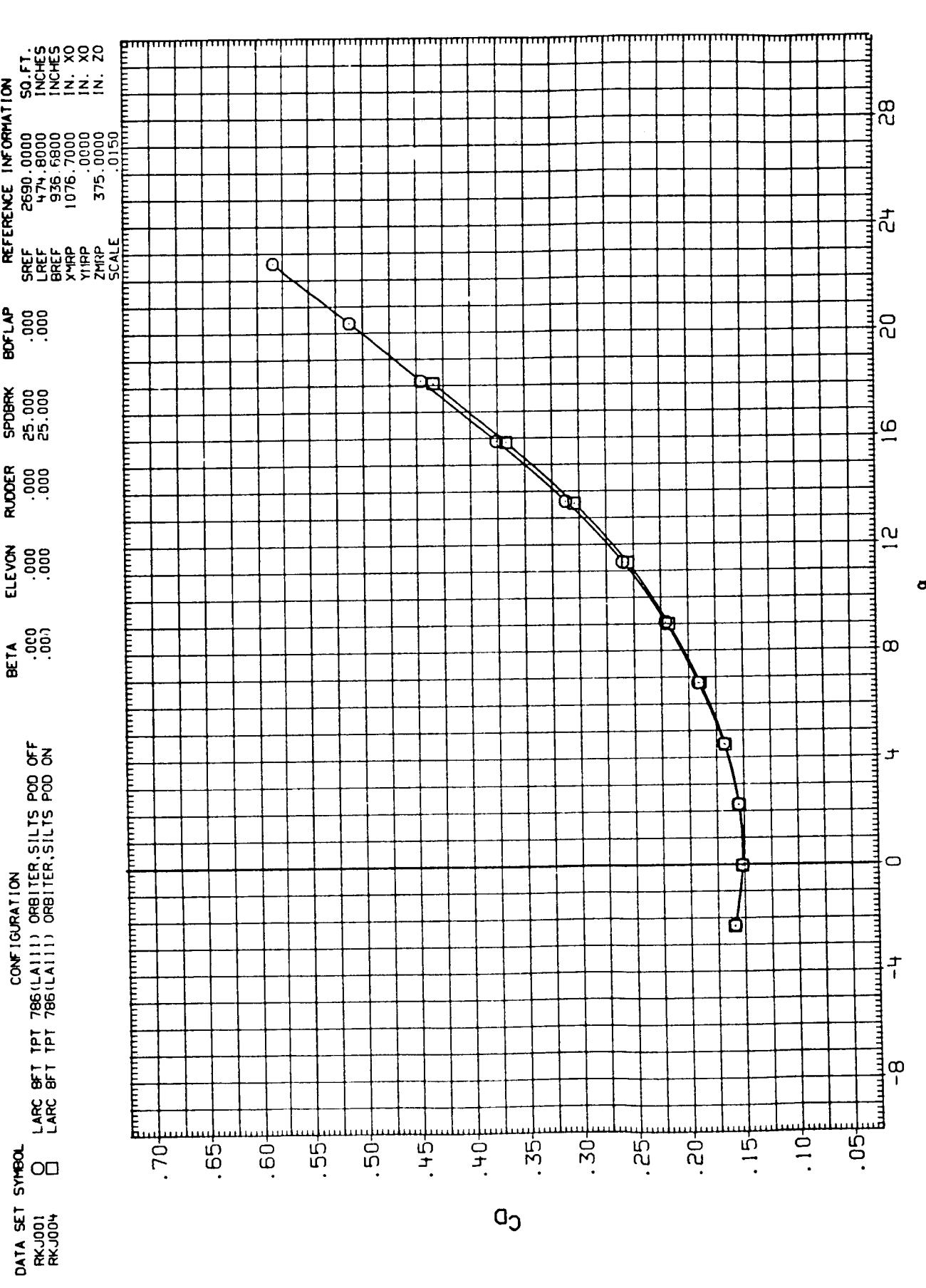


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(F)MACH = 1.20

PAGE 32

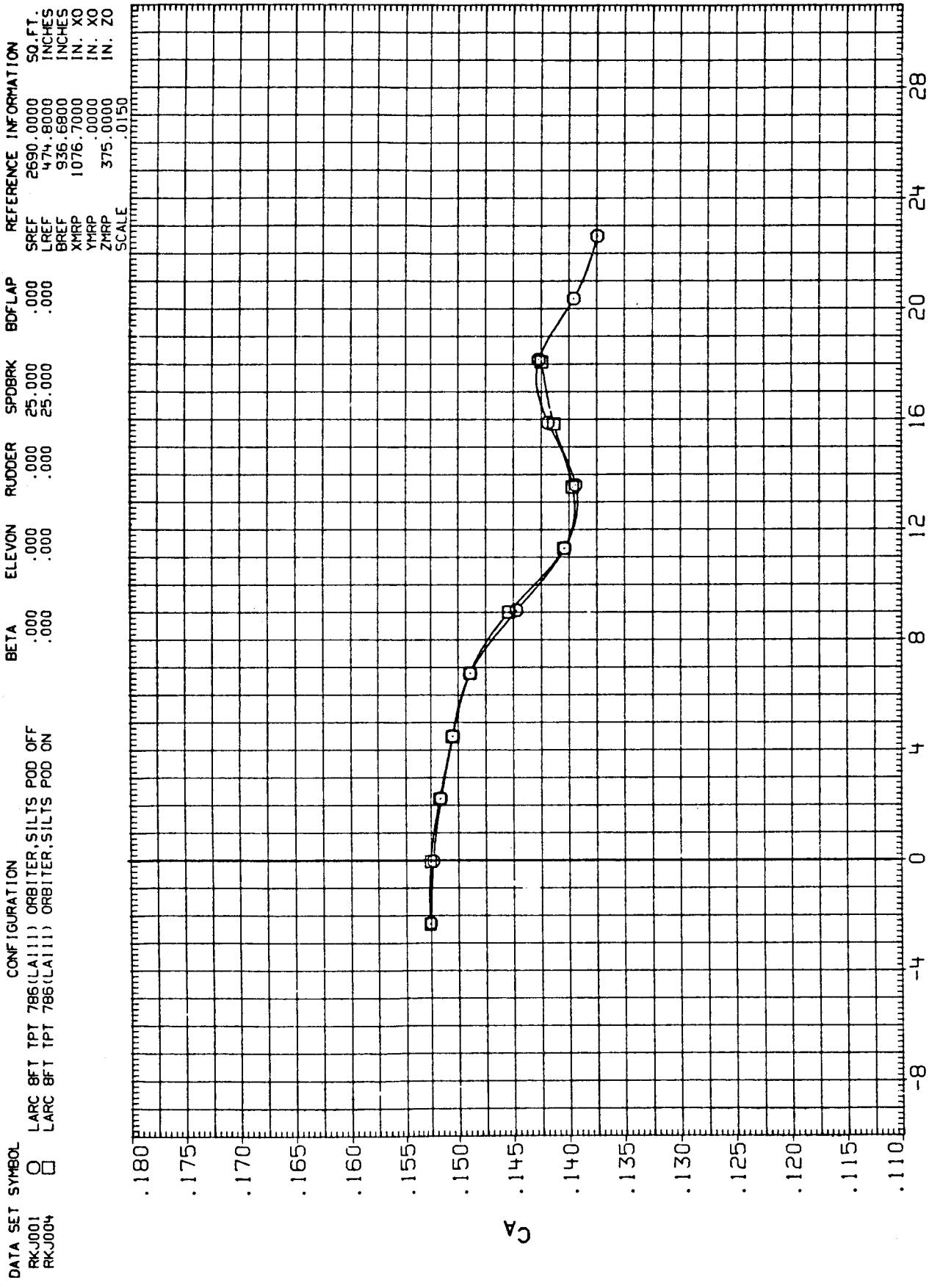


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(F) MACH = 1.20

PAGE 33

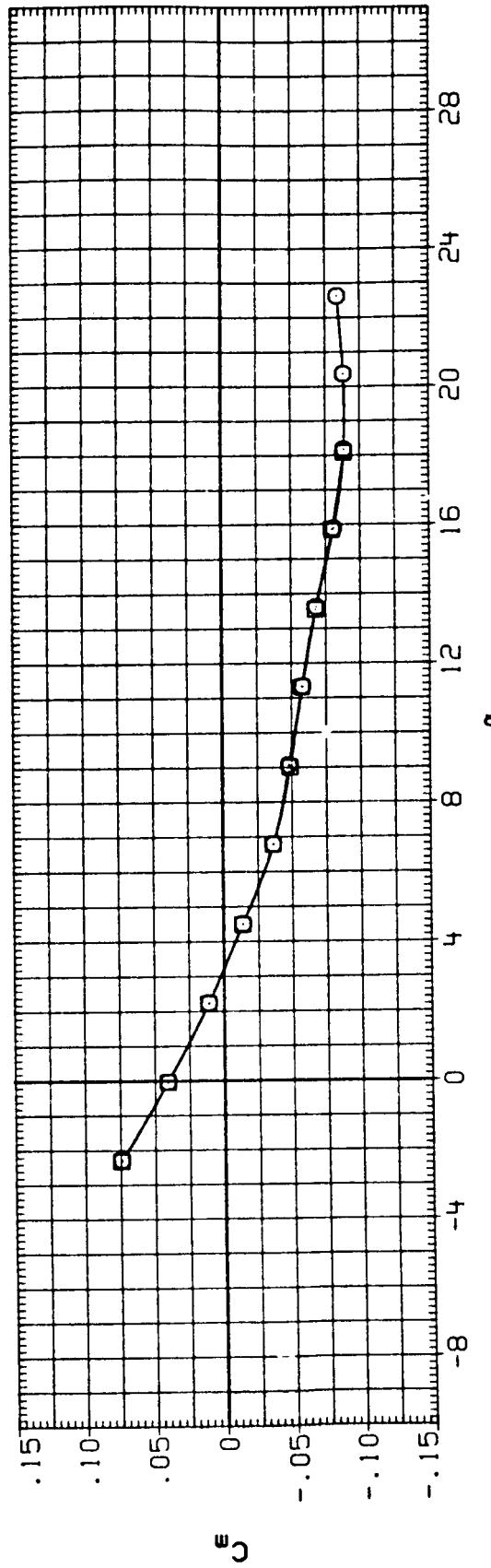
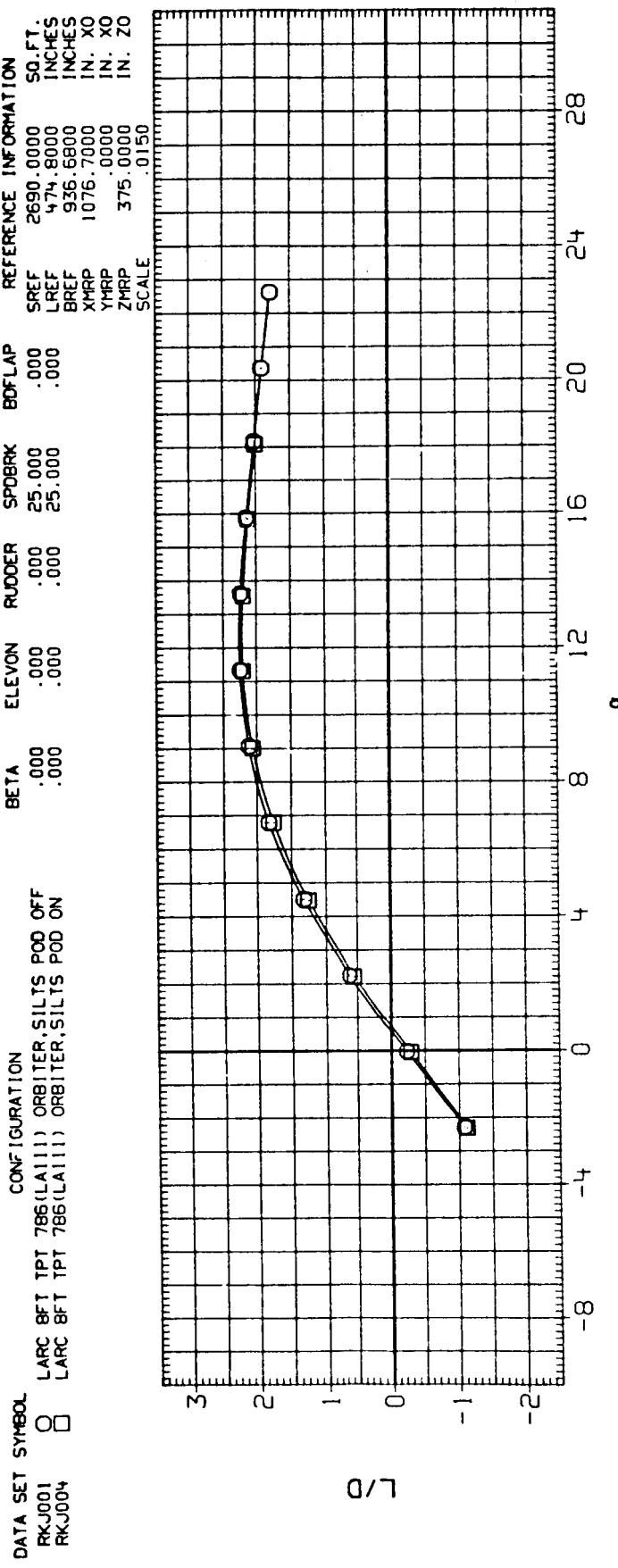


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES
(F) MACH = 1.20

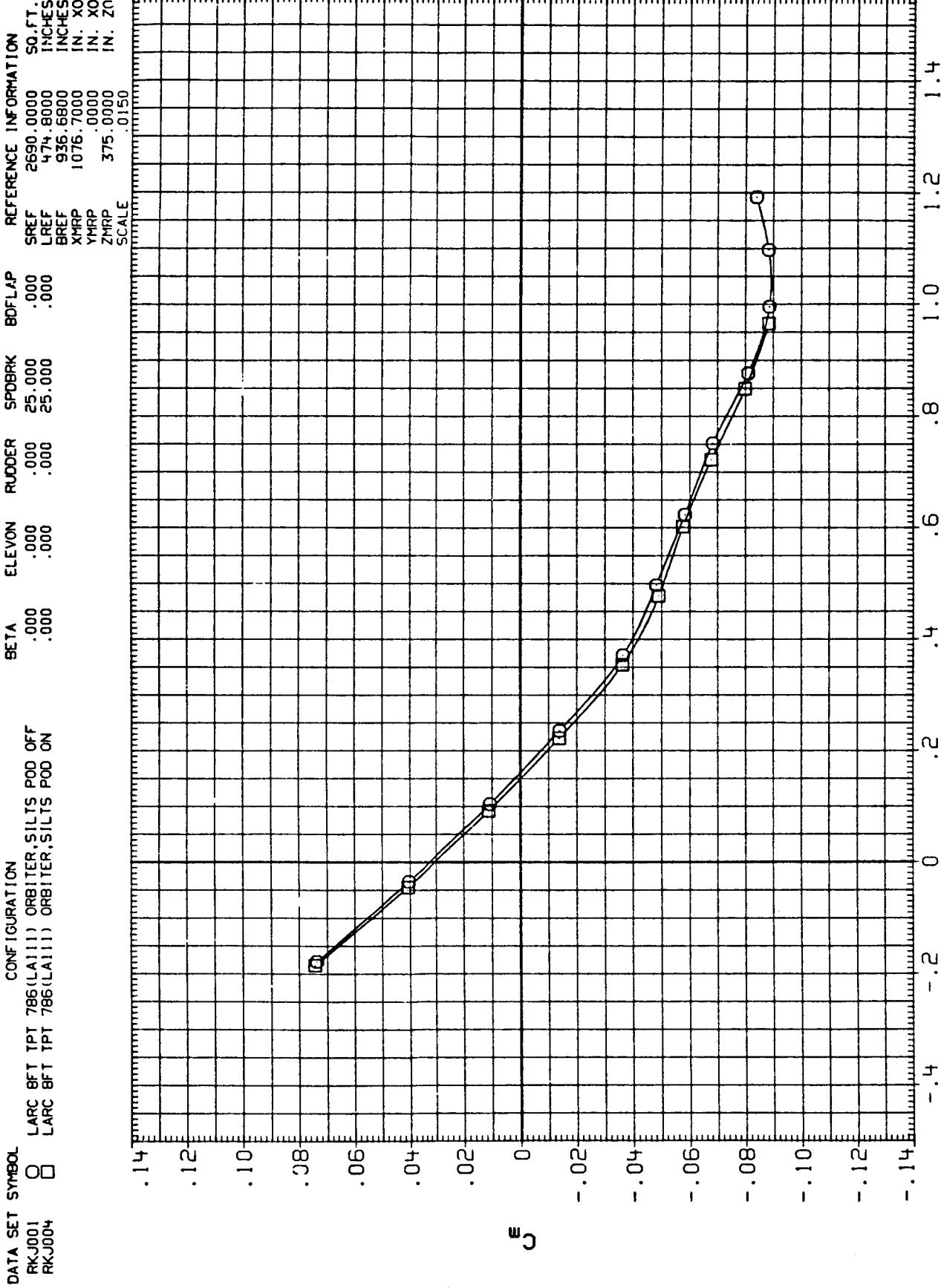


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

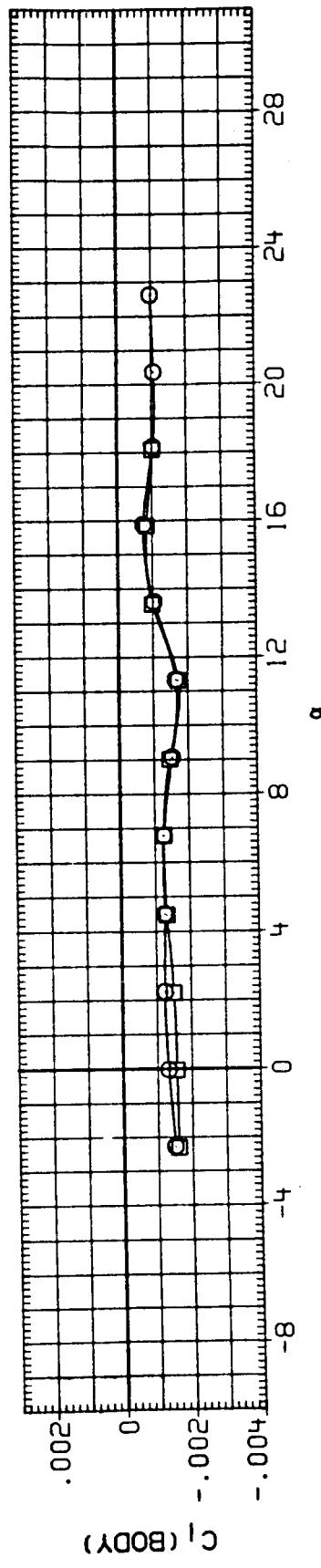
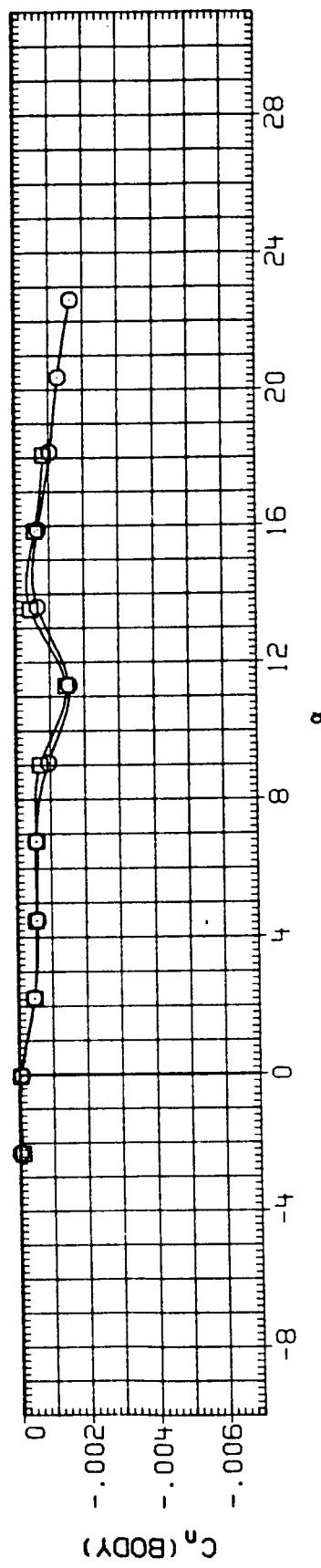
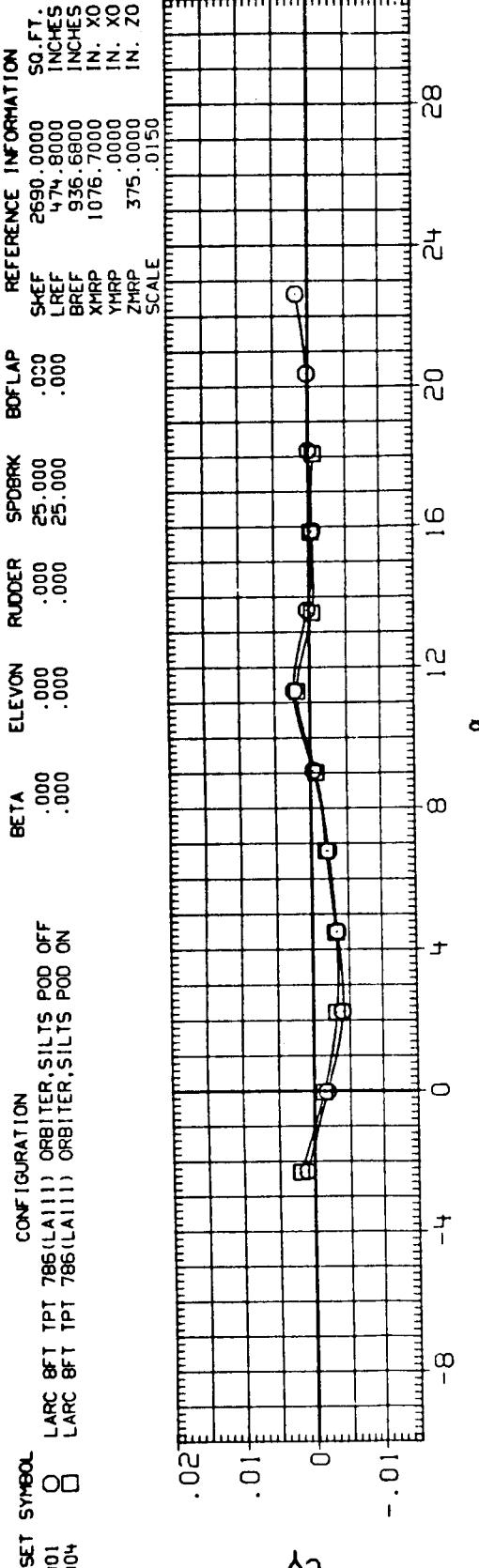


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES
(F) MACH = 1.20

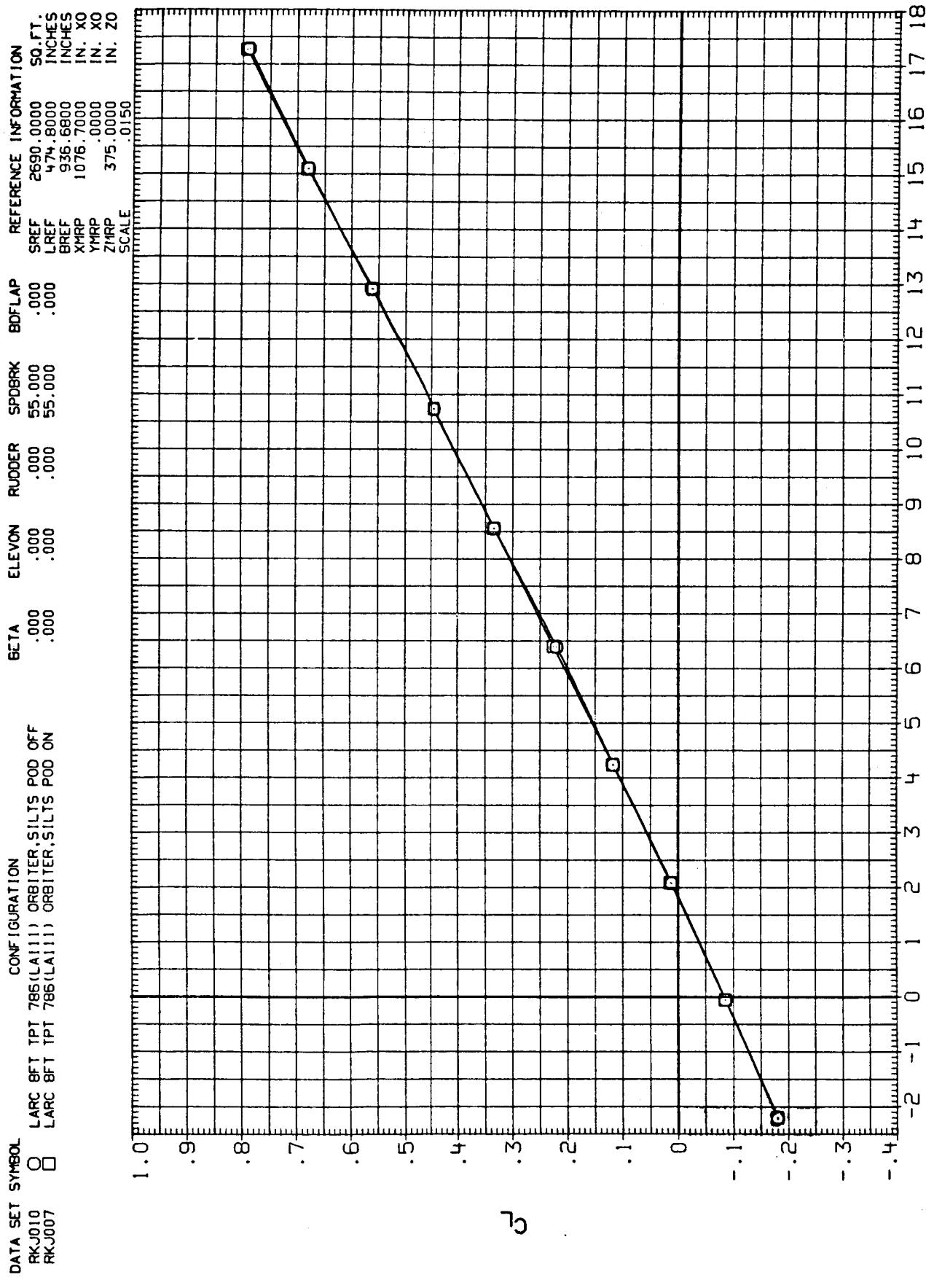


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A) MACH = .60

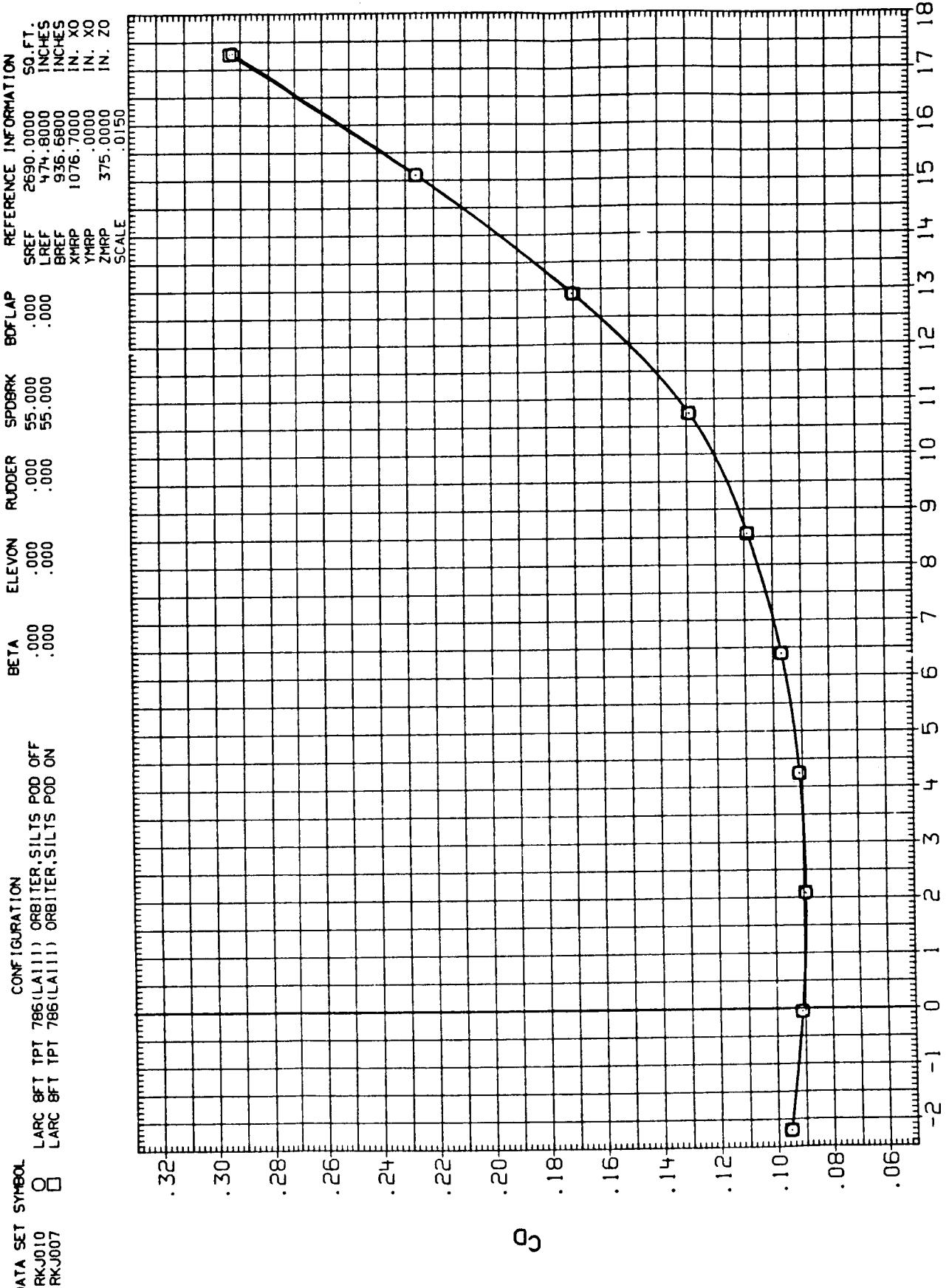


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
 OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A) MACH = .60

PAGE 38

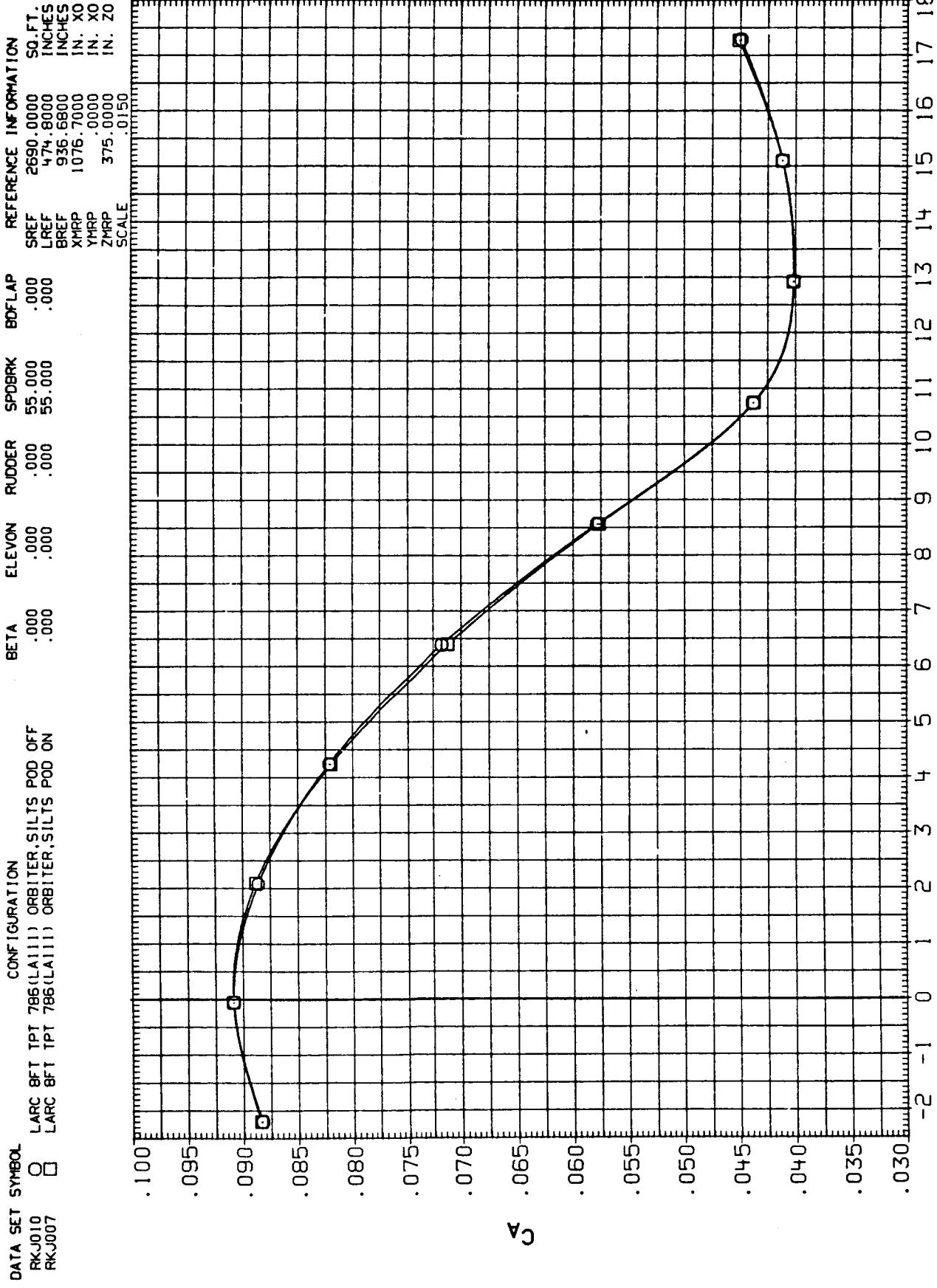


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A) MACH = .60

PAGE 39

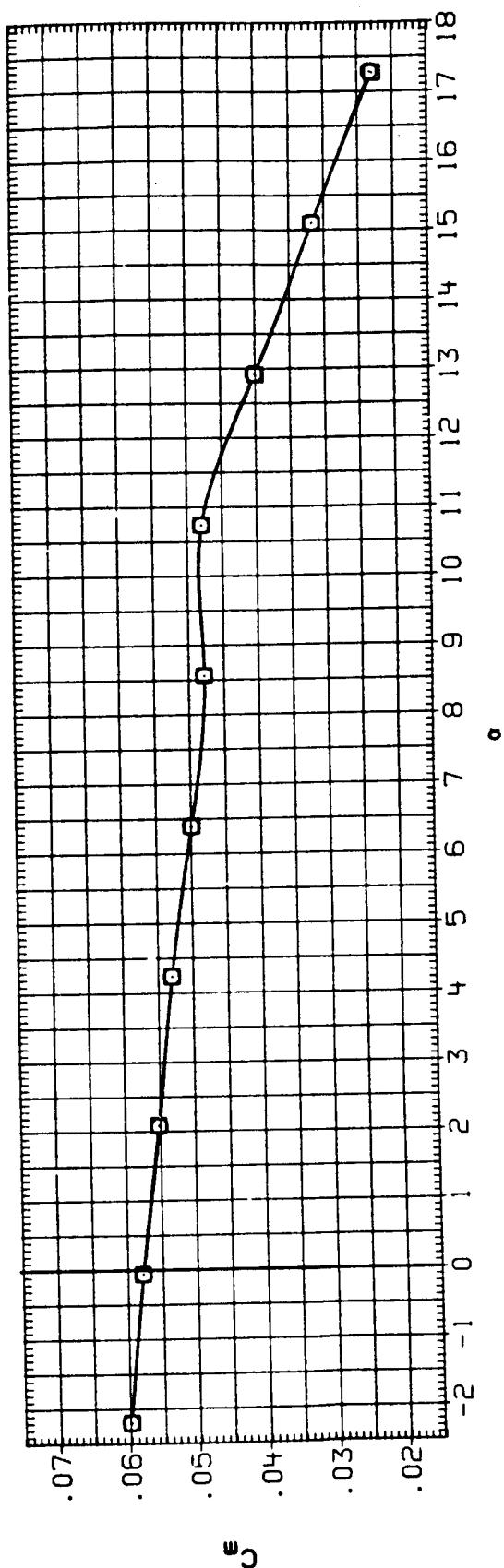
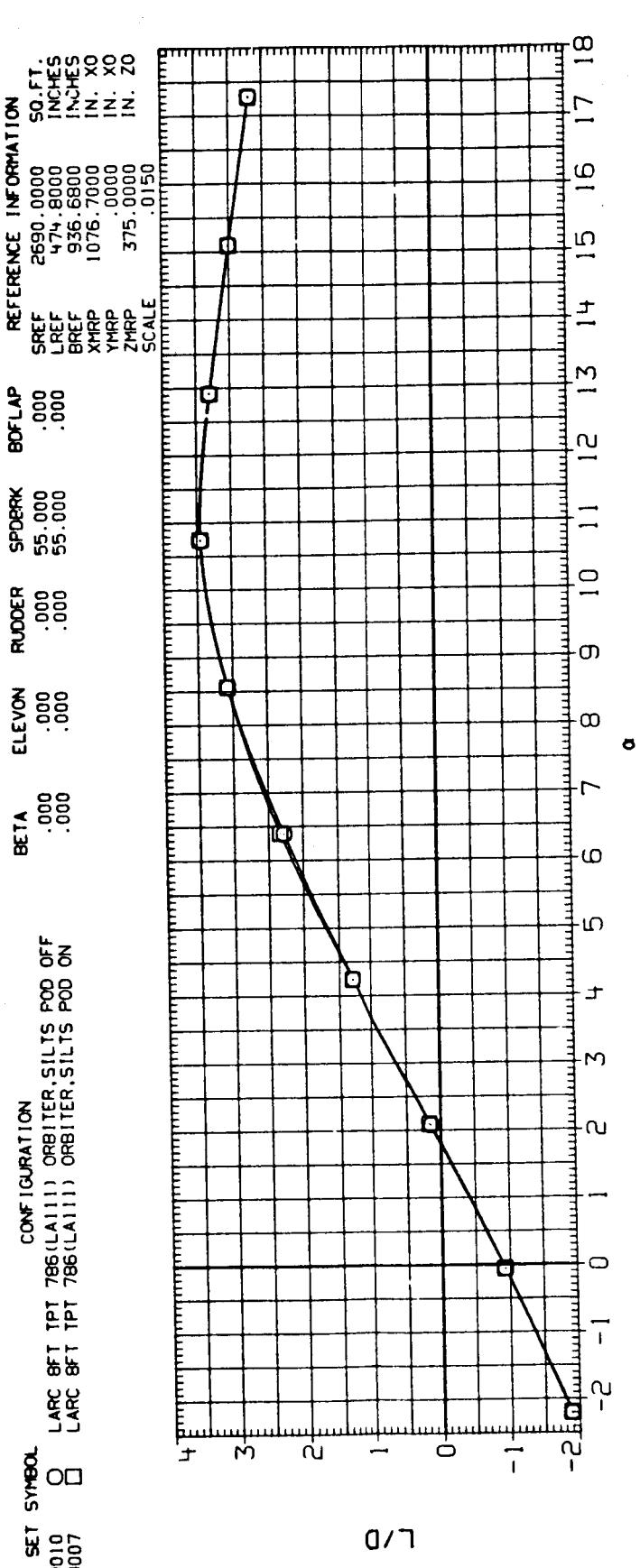


FIGURE 5. EFFECT OF SILITS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A) MACH = .60

PAGE 40

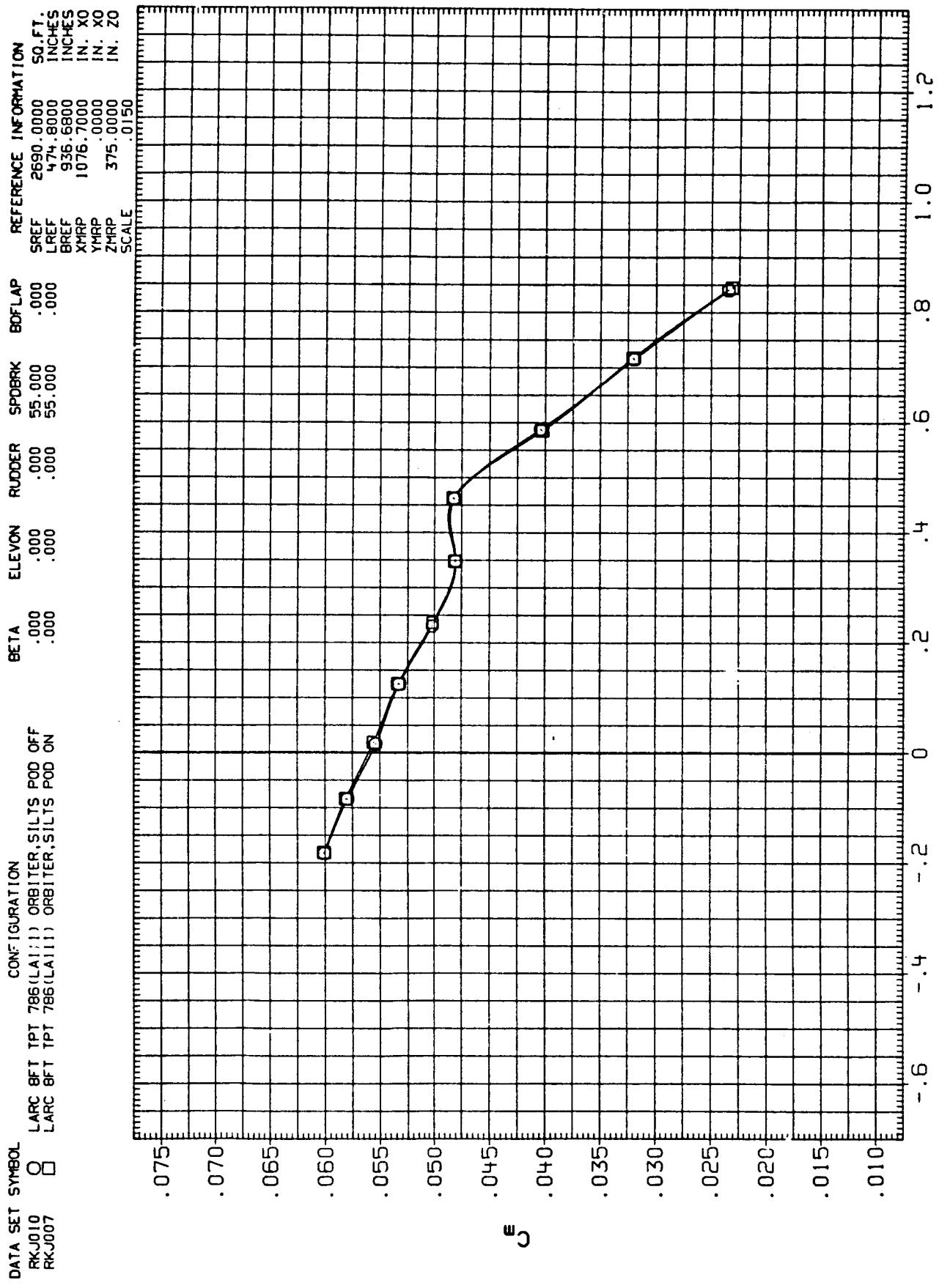


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A) MACH = .60

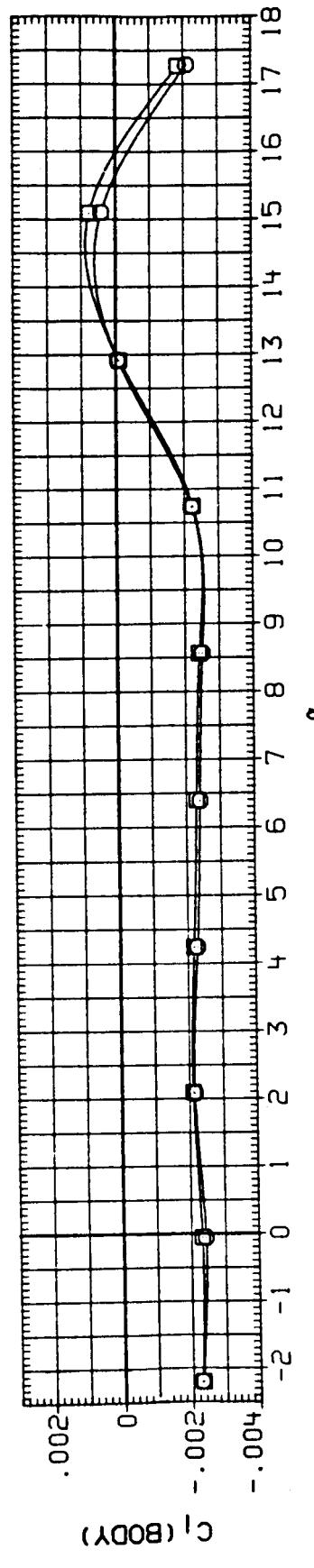
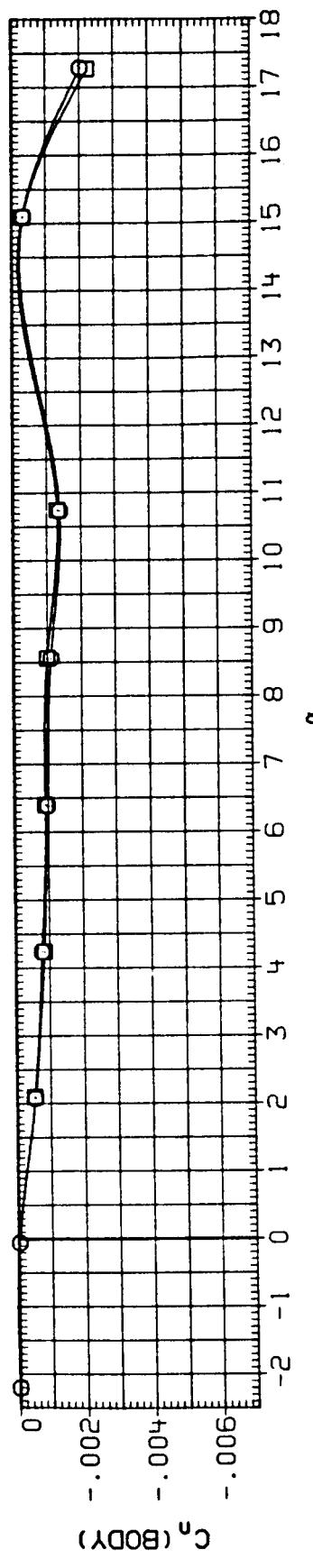
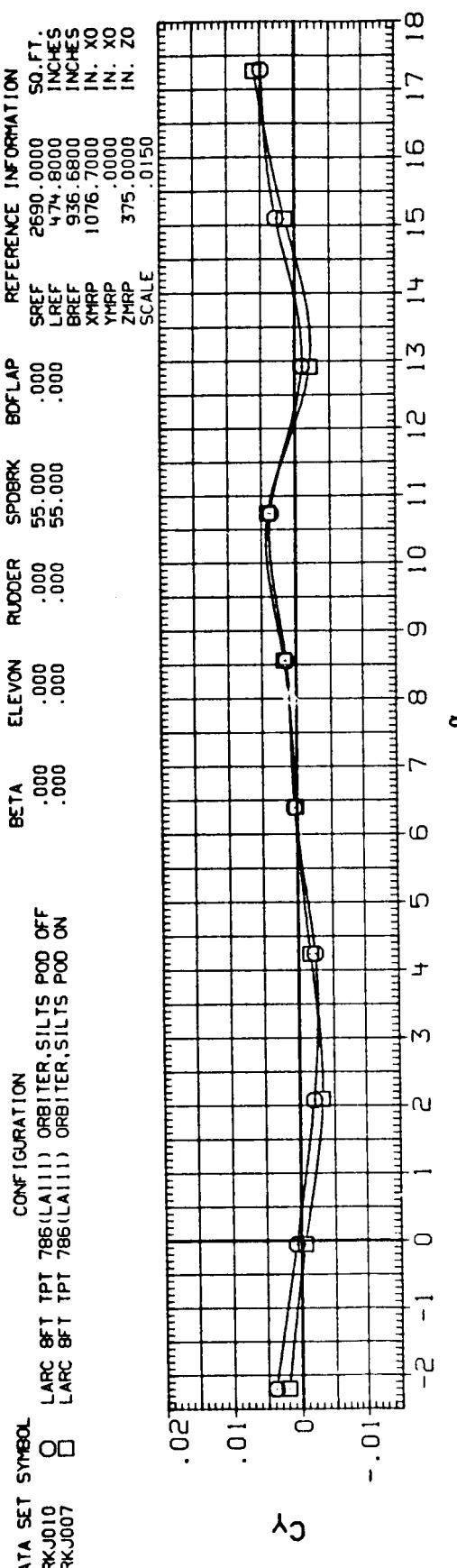


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A) MACH = .60

PAGE 42

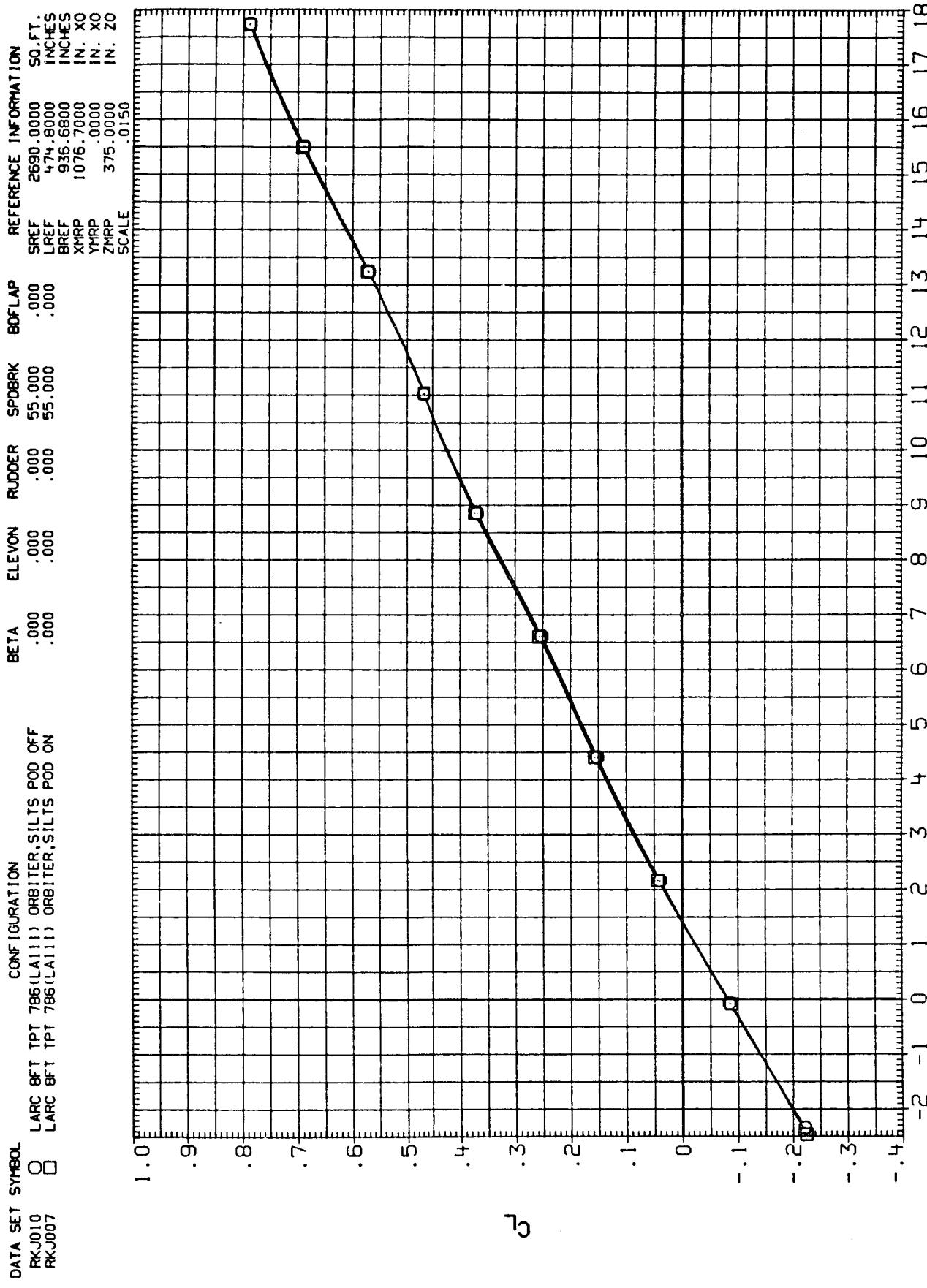


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(B) MACH = .90

PAGE 43

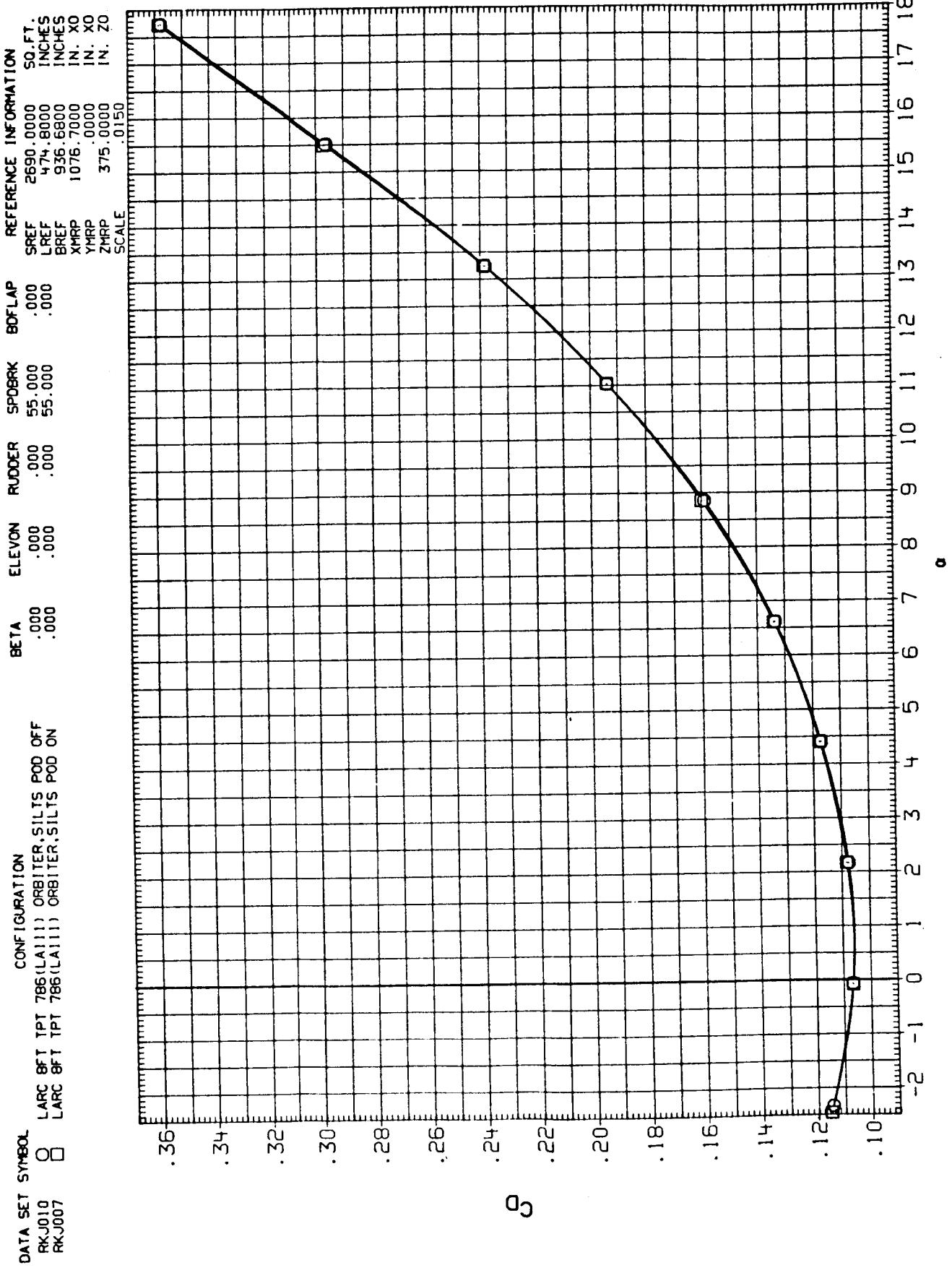


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(B) MACH = .90

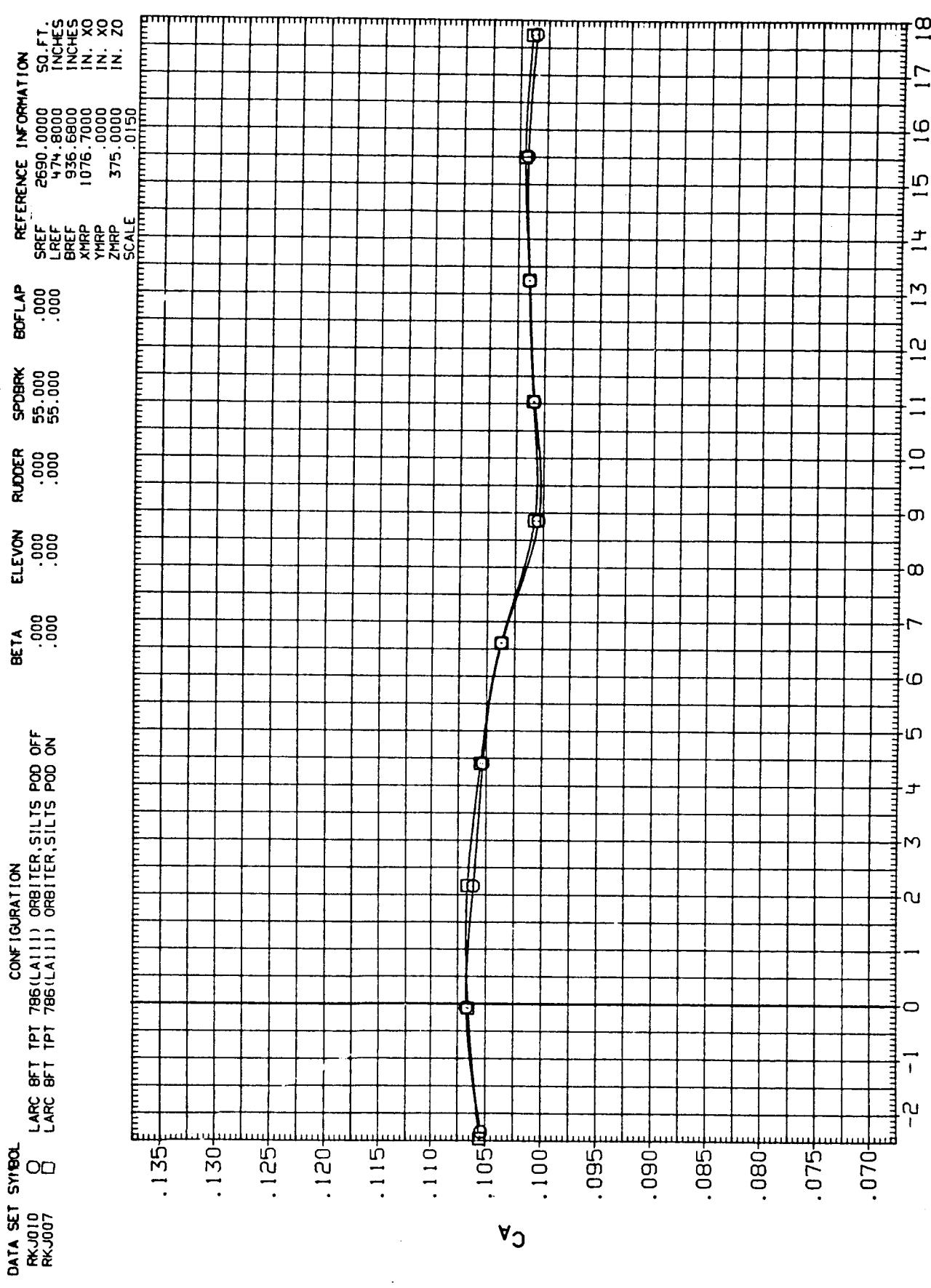


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(B)MACH = .90

DATA SET SYMBOL

CONFIGURATION

DATA SET SYMBOL	LARC	BFT TPI 786(LA111)	ORBITER, SILTS POD OFF
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RKJ007	□	0	ORBITER, SILTS POD ON

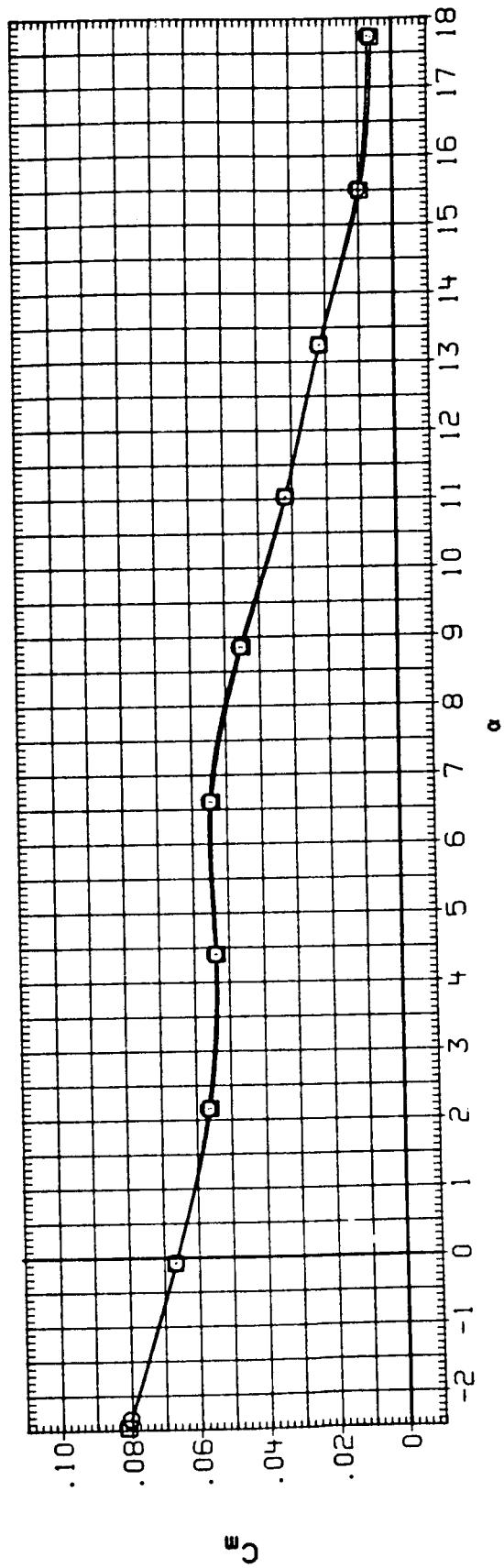
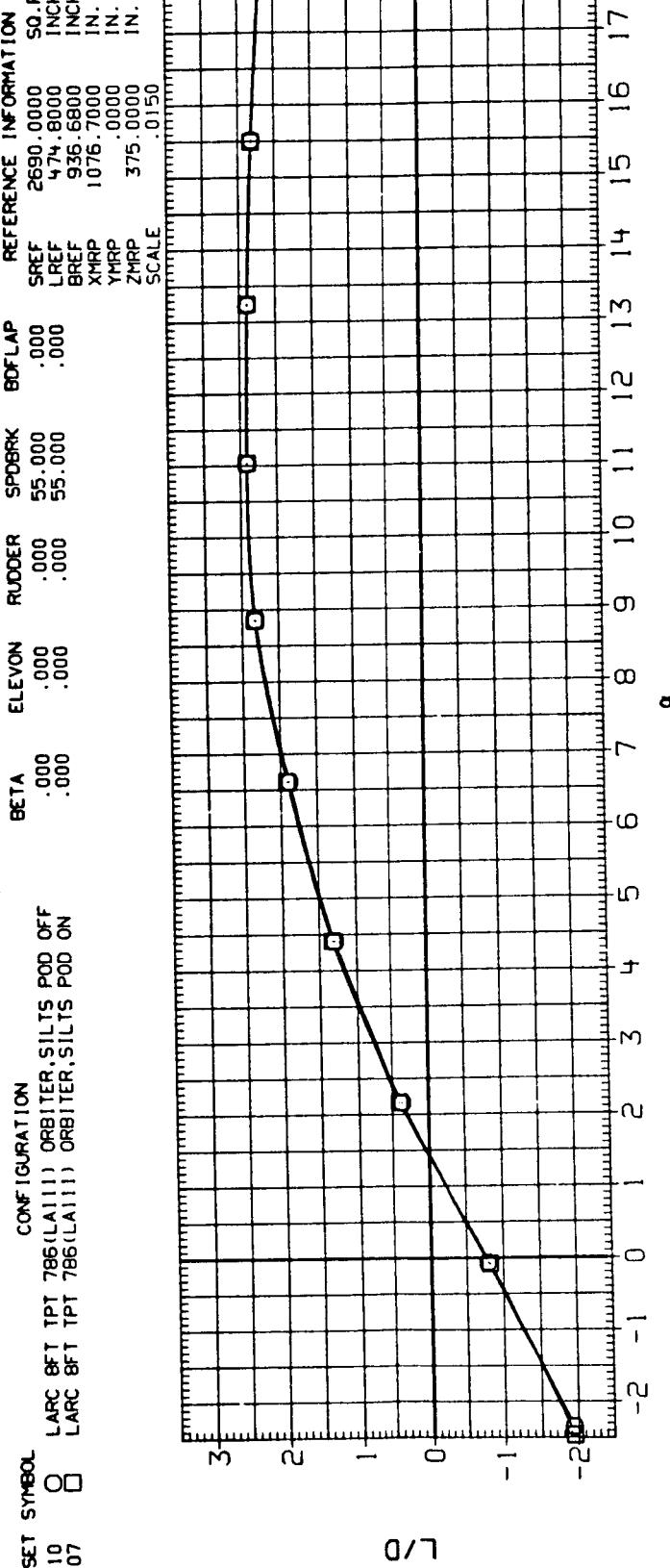


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

PAGE
46

(B) MACH = .90

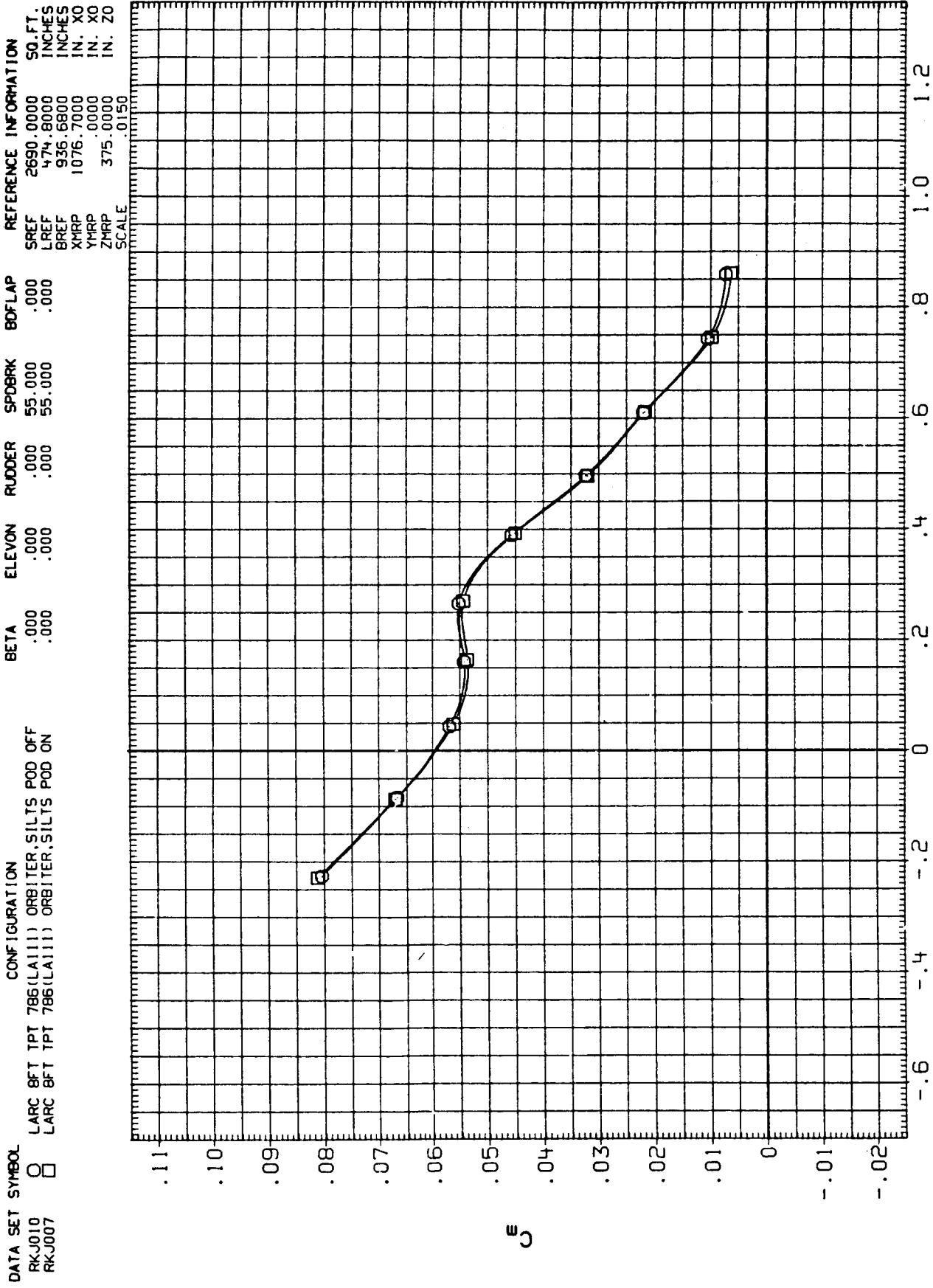


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(B)MACH = .90

PAGE 47

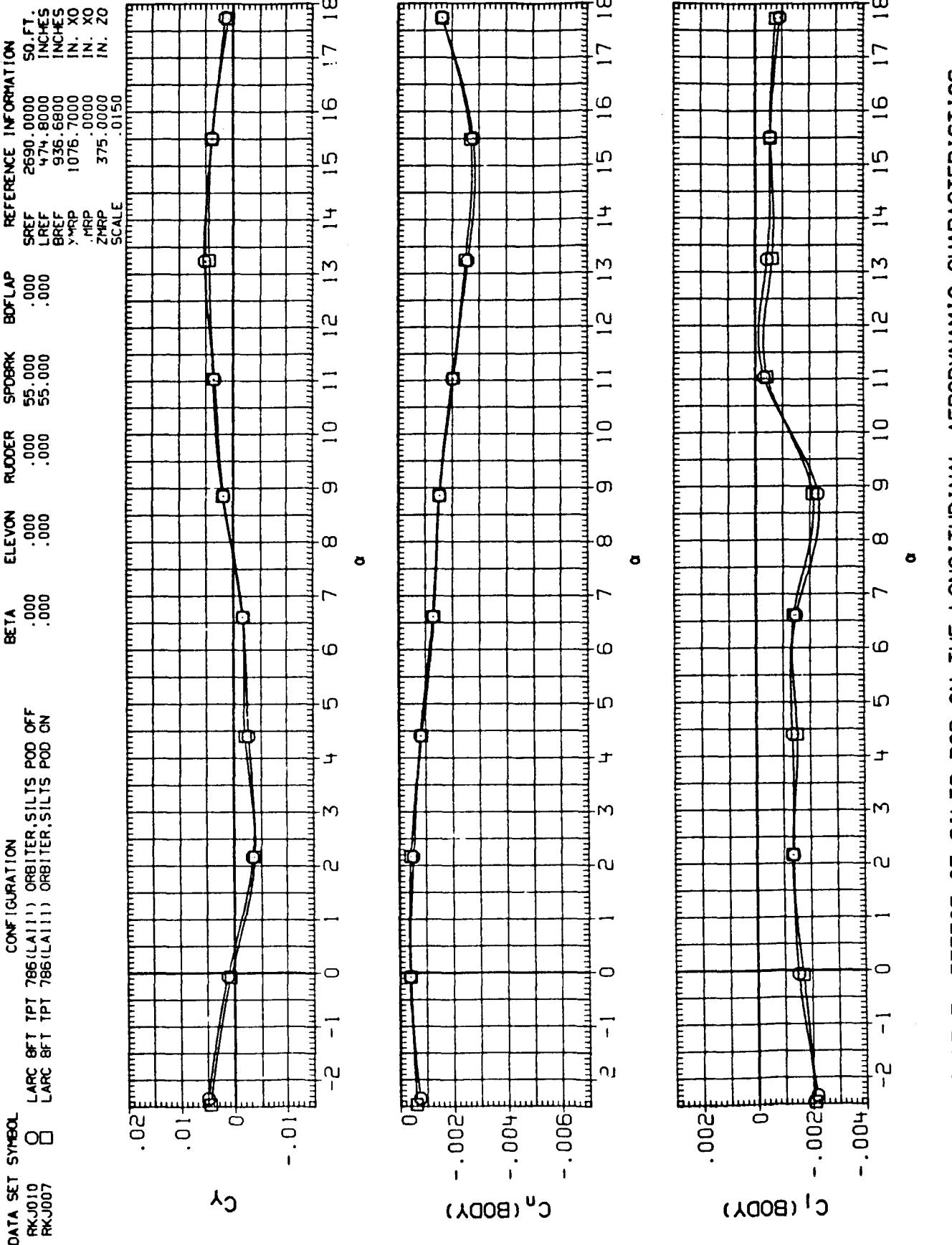


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES
(B) MACH = .90

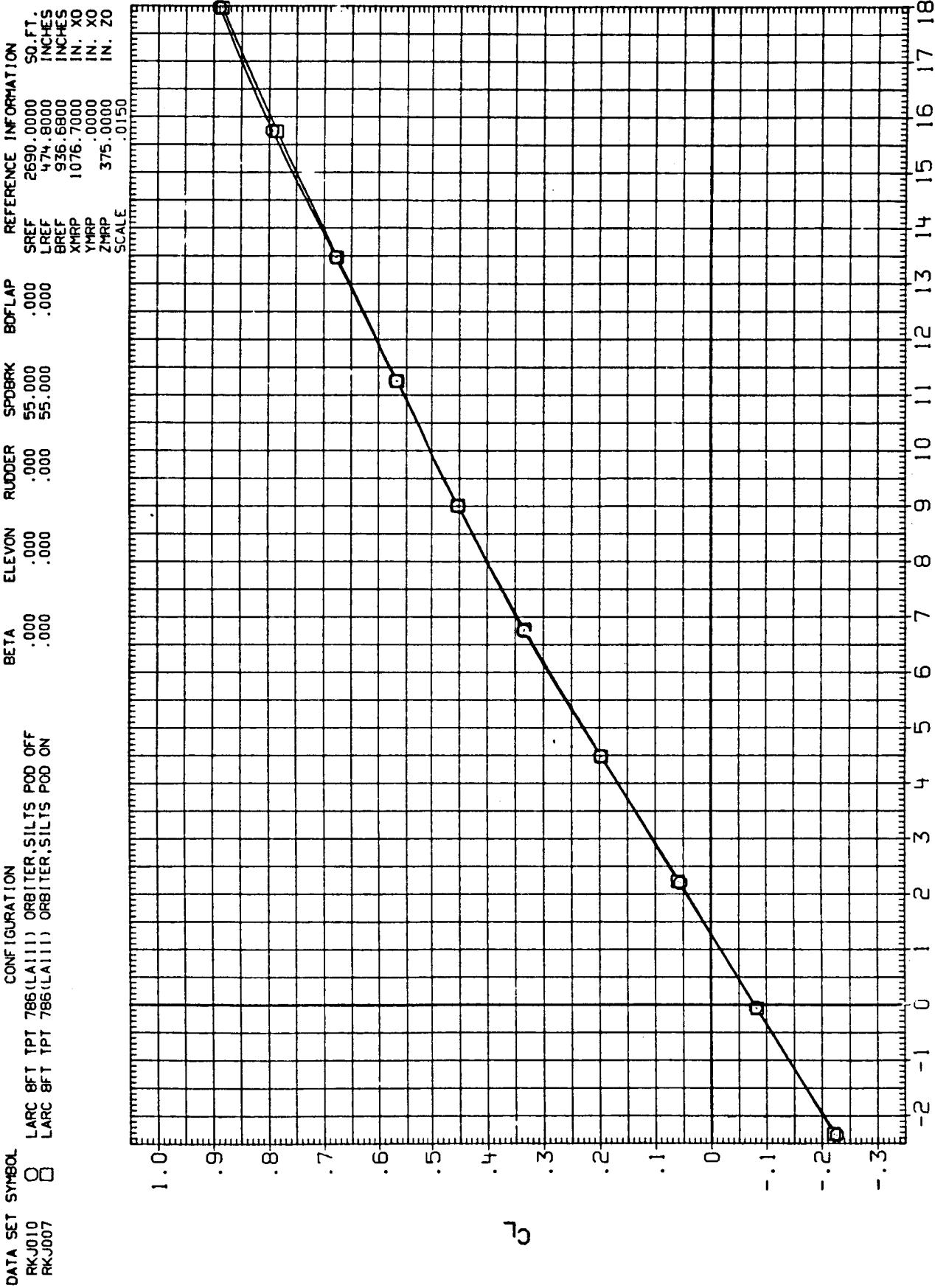


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

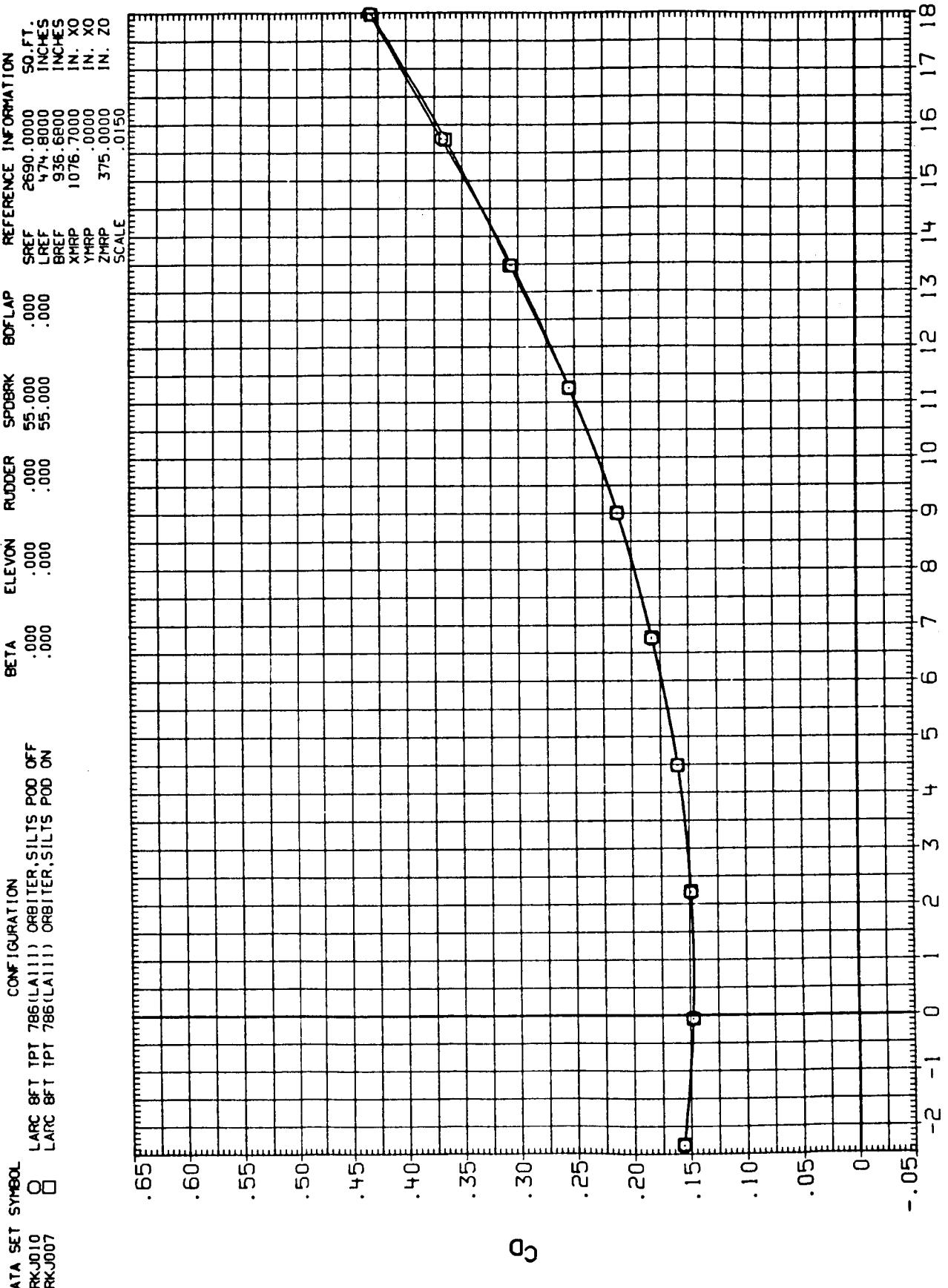


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C) MACH = .98

PAGE 50

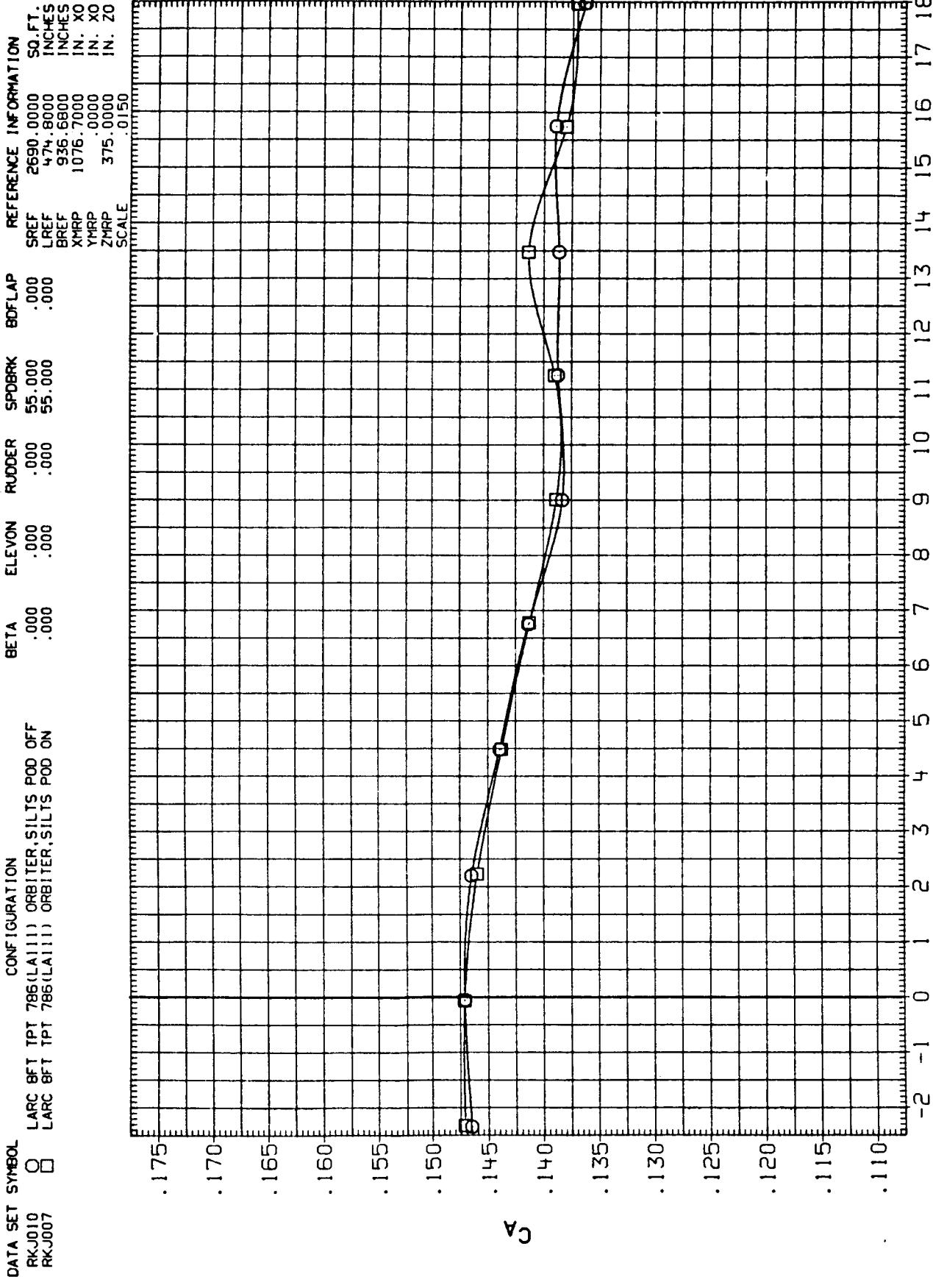


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C) MACH = .98

PAGE 51

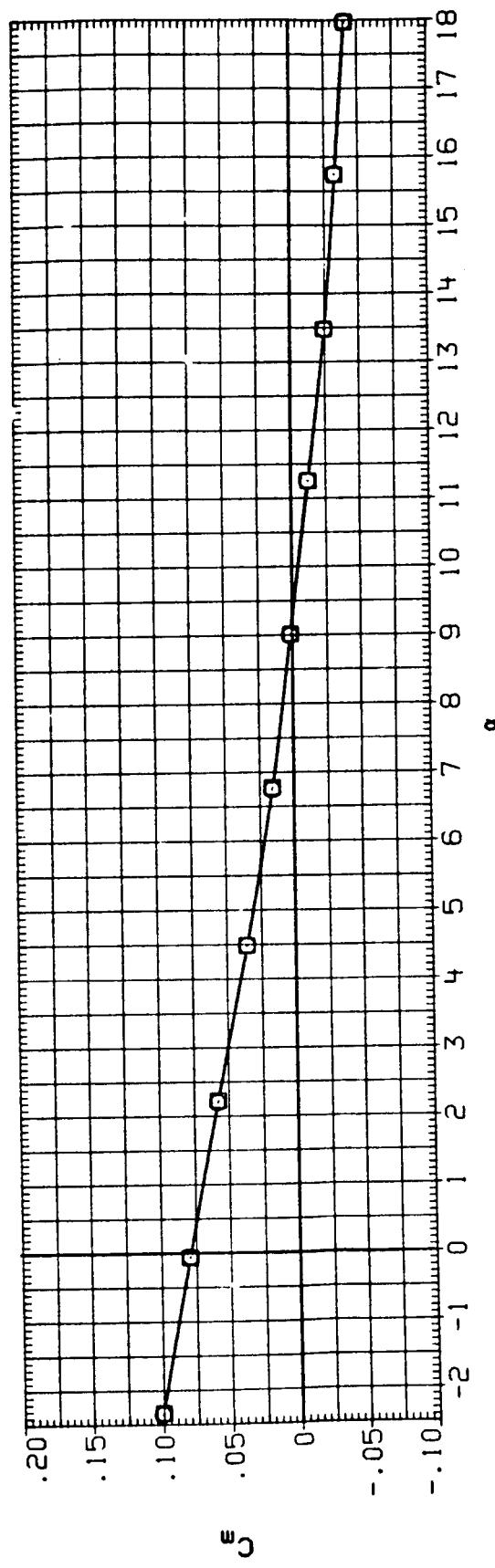
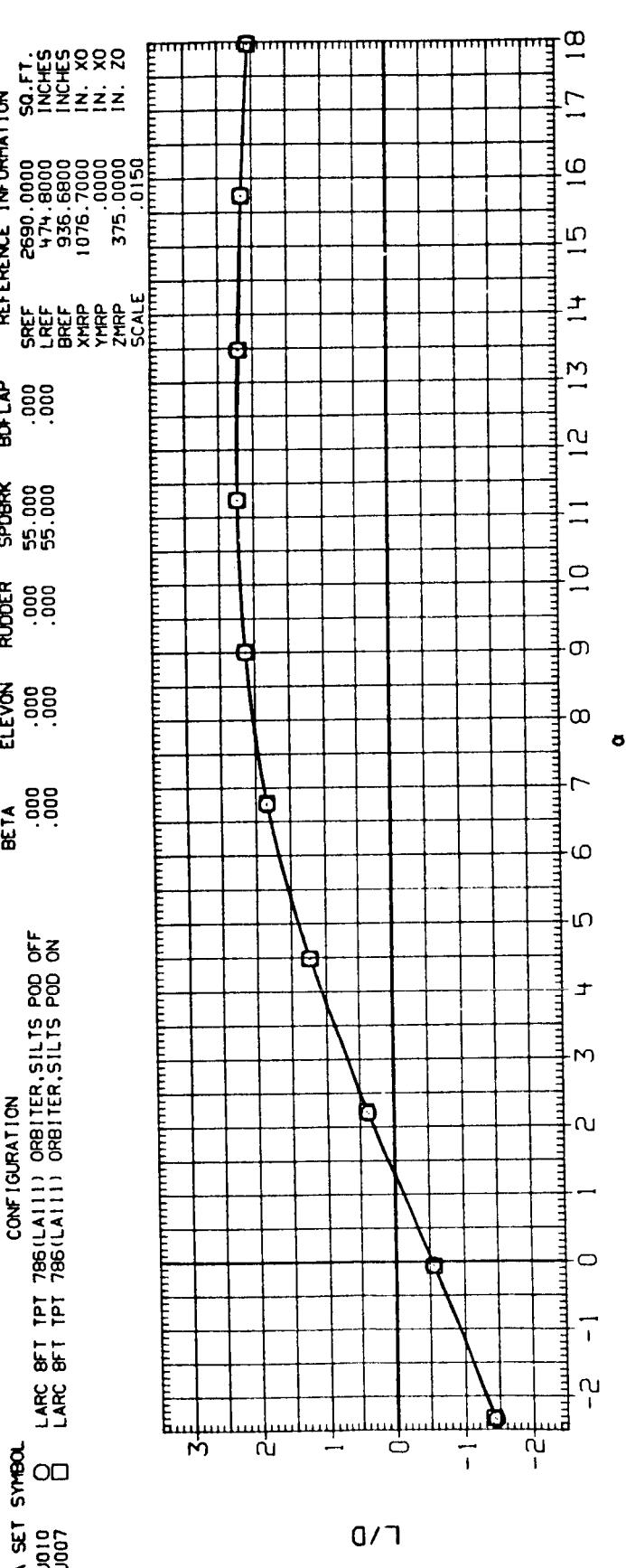


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C)MACH = .98

PAGE 52

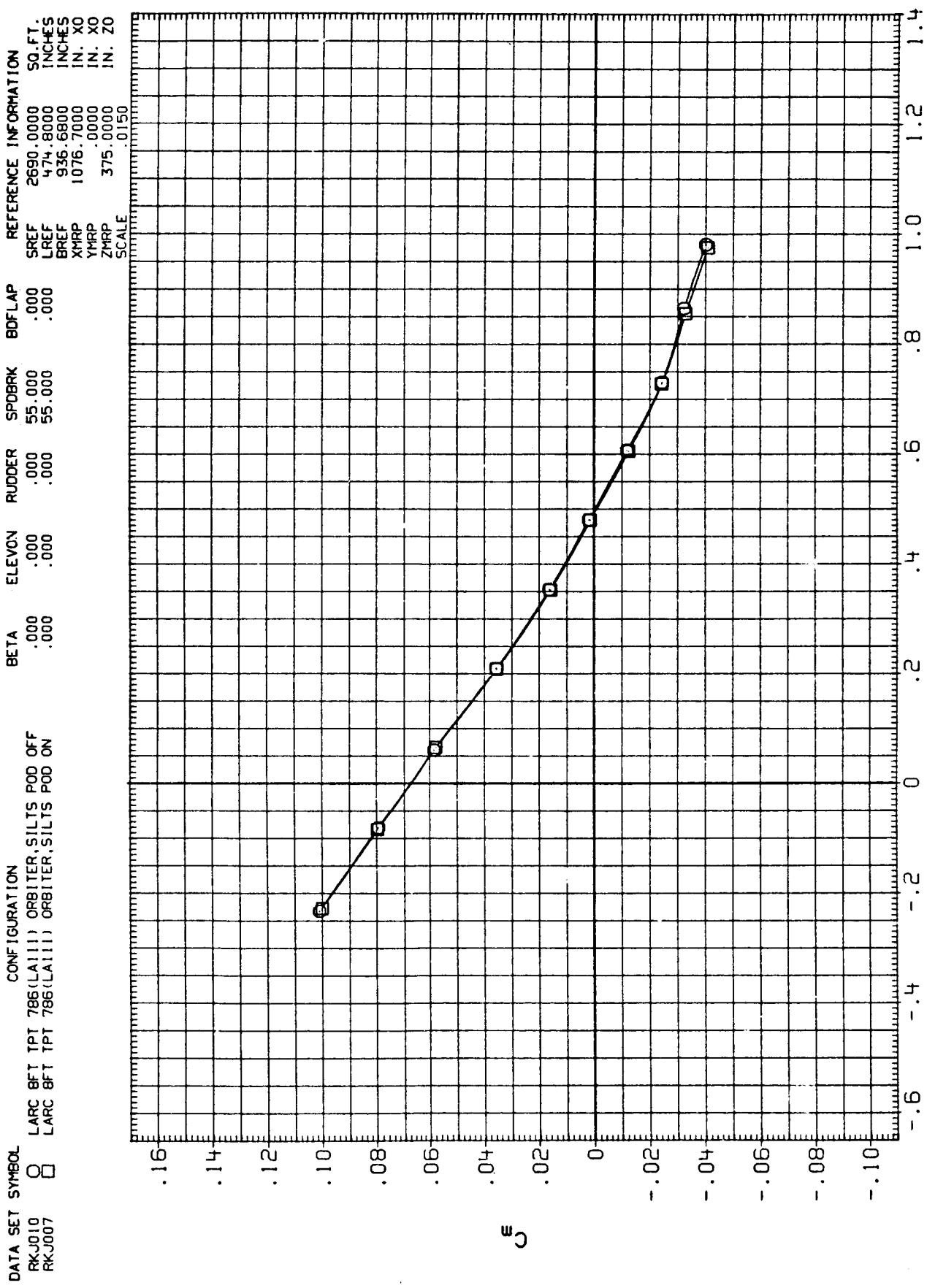


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C) MACH = .98

PAGE 53

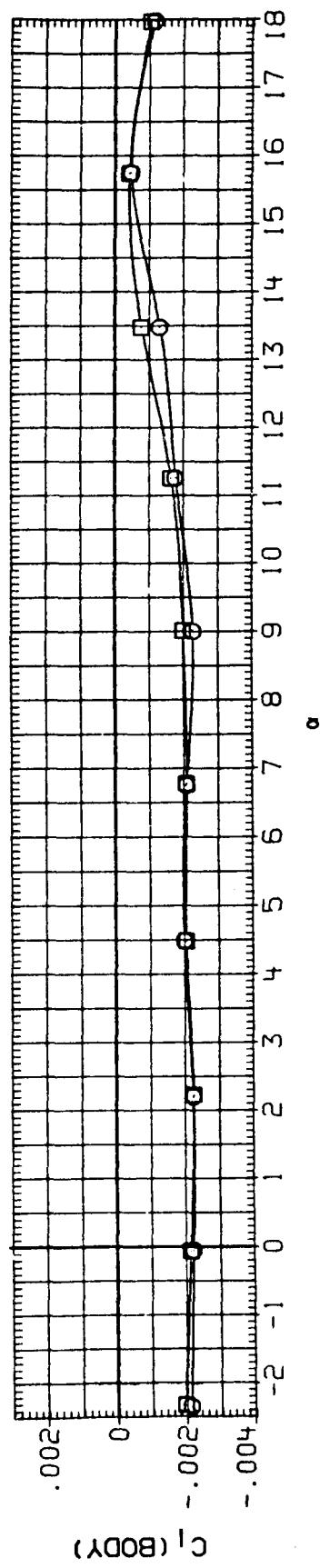
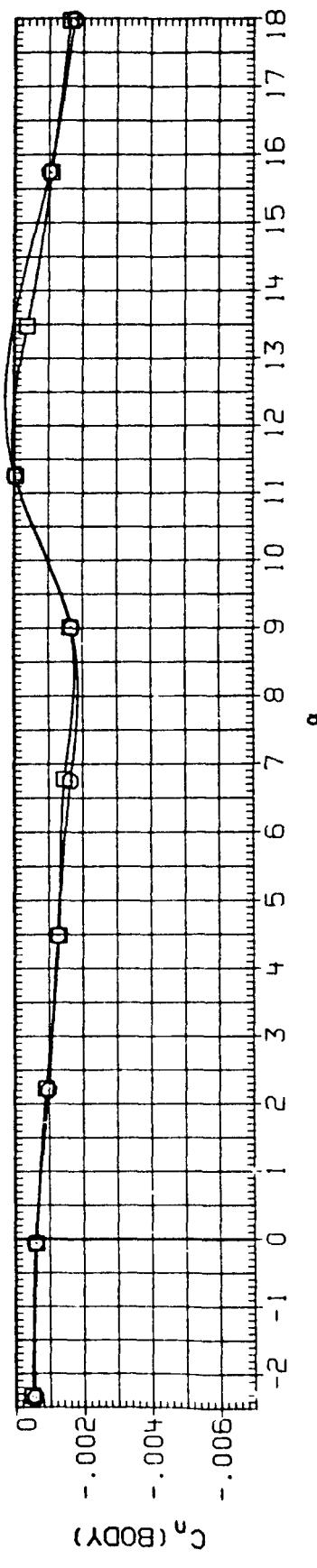
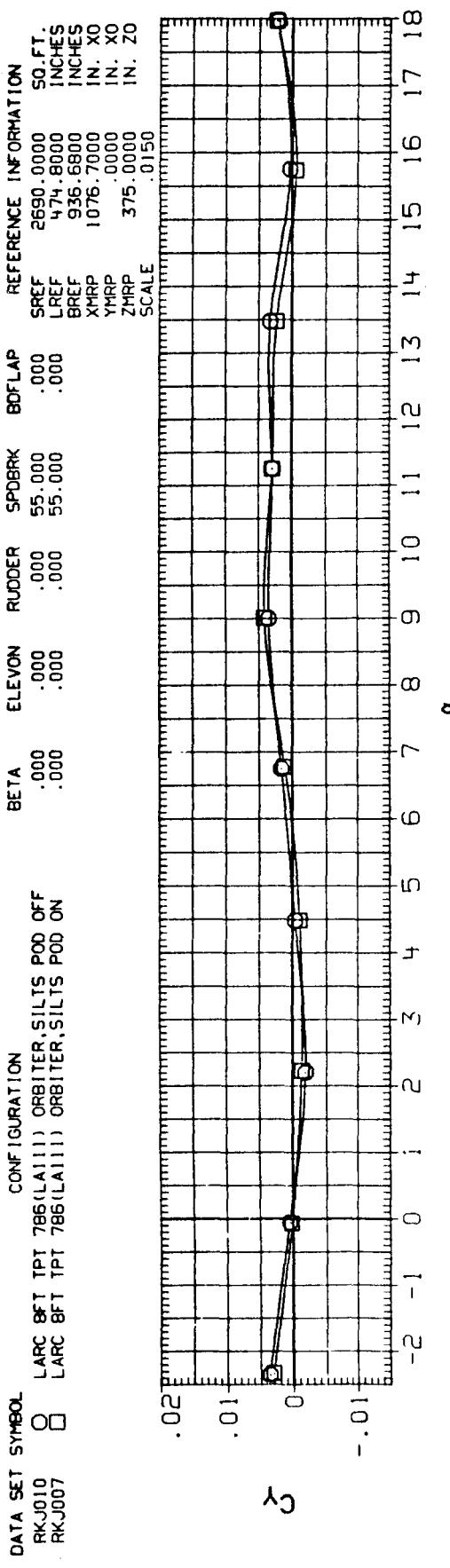


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C)MACH = .98

PAGE 54

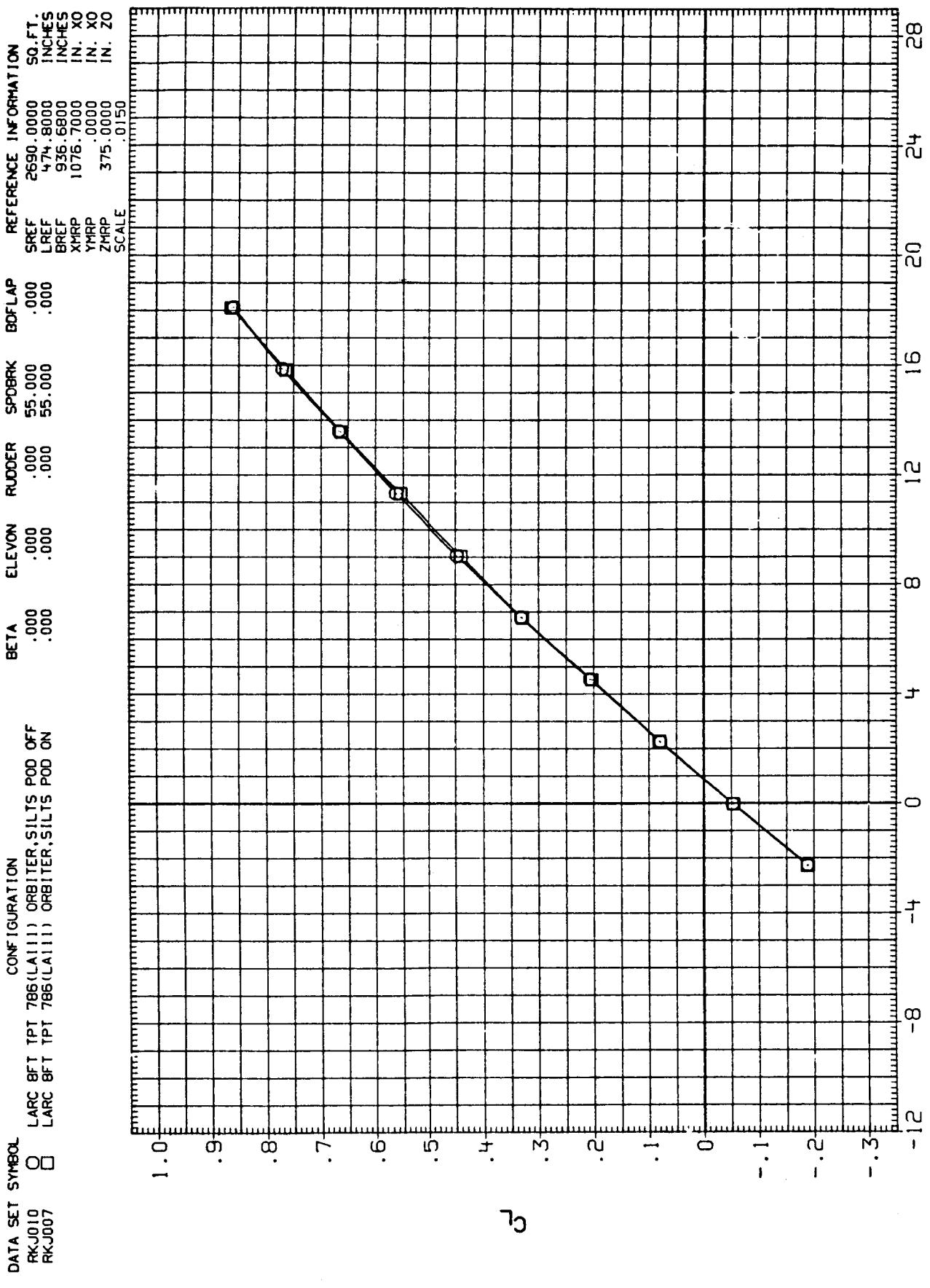


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(D) MACH = 1.20

PAGE 55

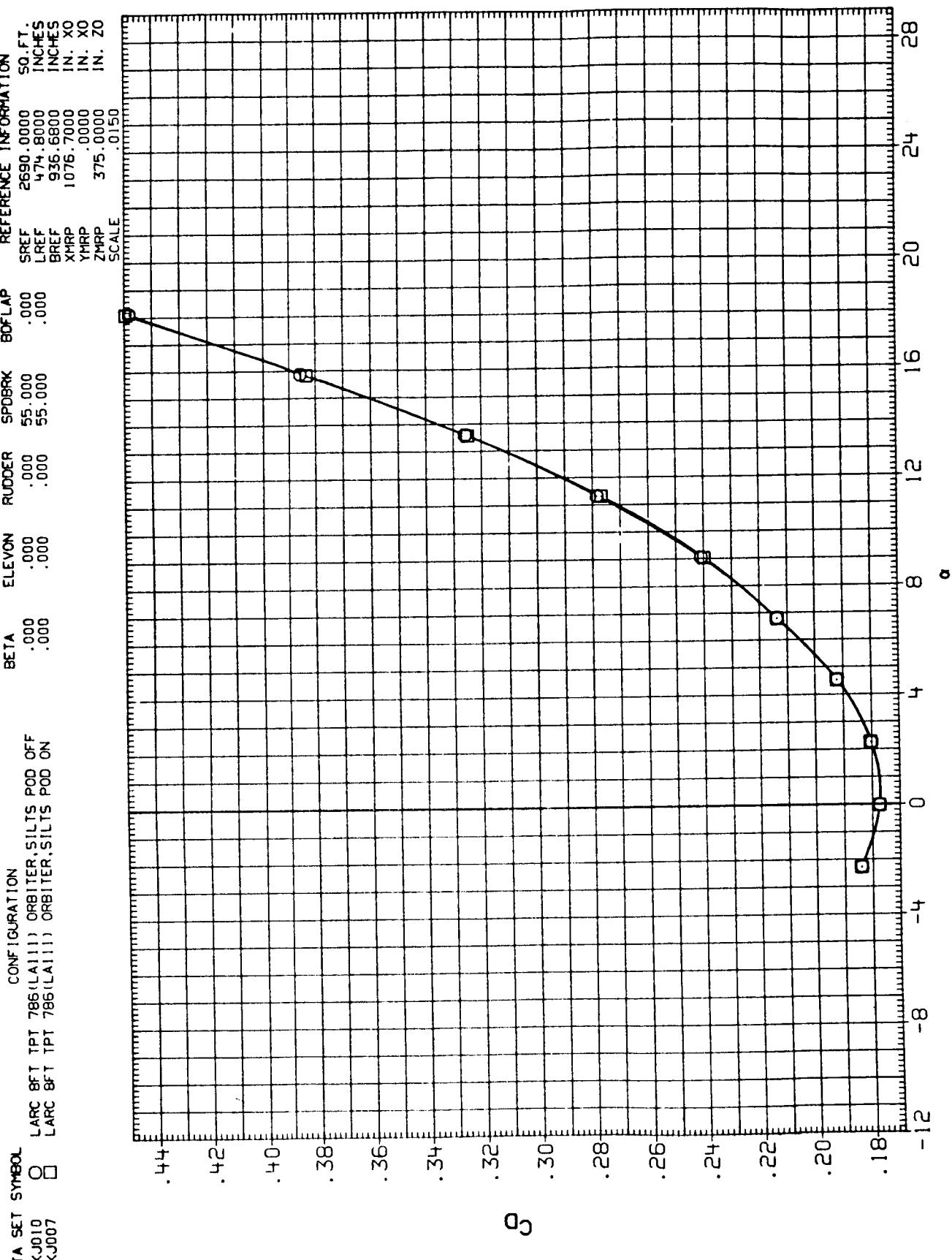


FIGURE 5. EFFECT OF SLETS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

PAGE 56

(D) MACH = 1.20

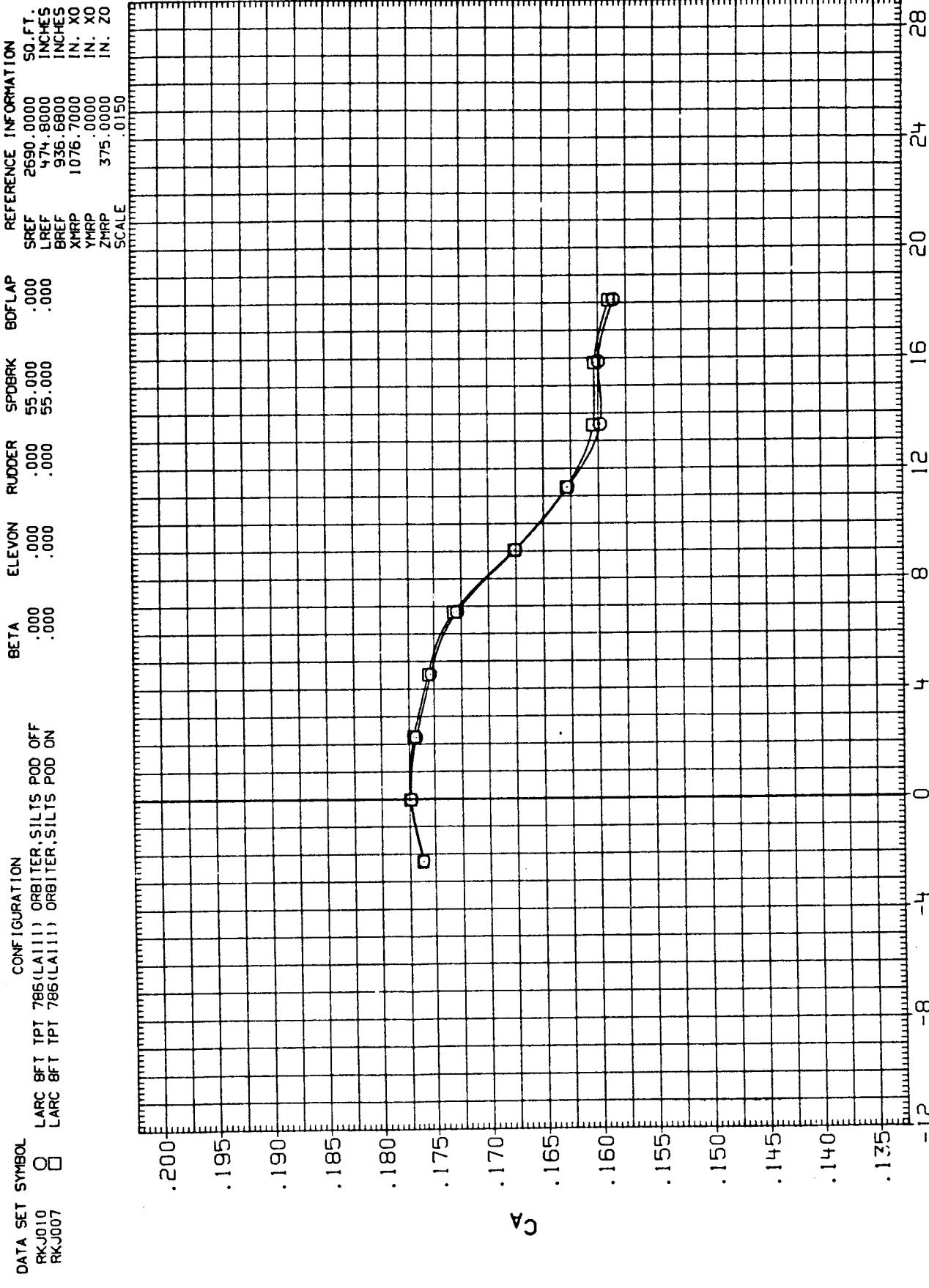


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

DATA SET SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPOBRK	BOFLAP	REFERENCE INFORMATION
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FKJ007	LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000	

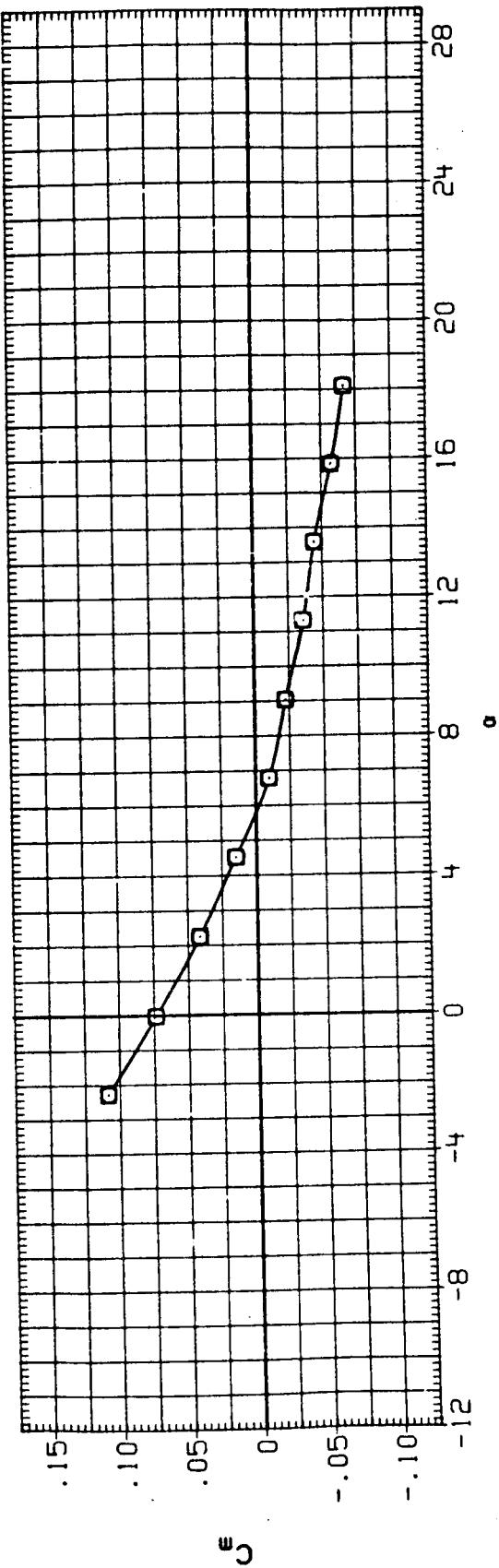
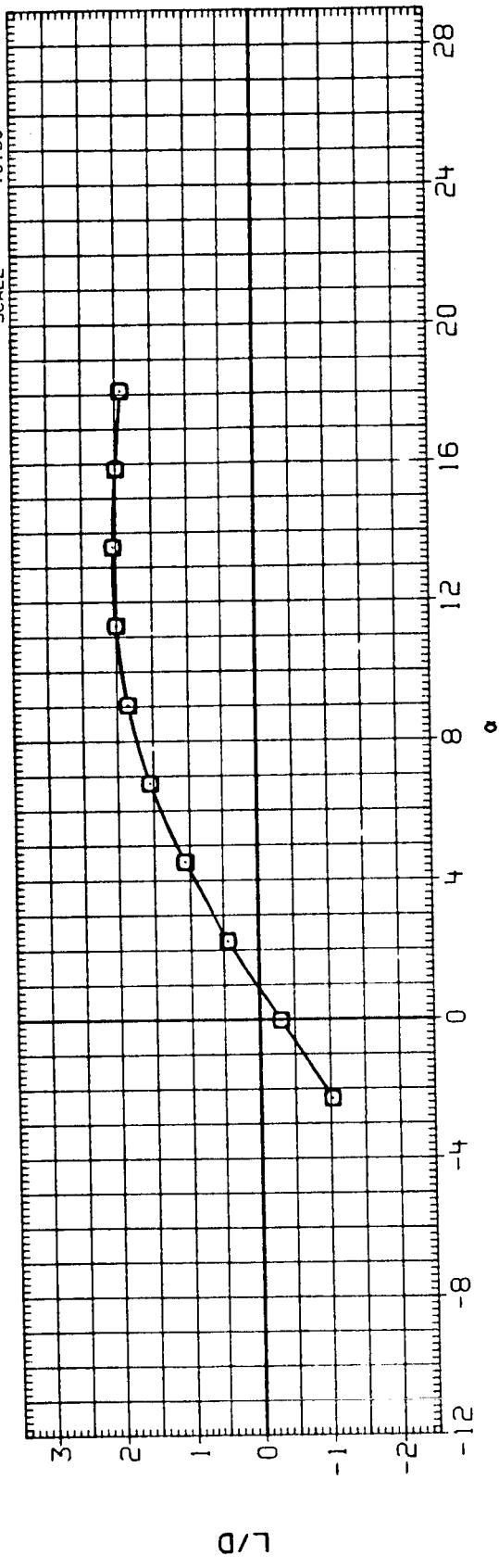


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES
(D) MACH = 1.20 PAGE 58

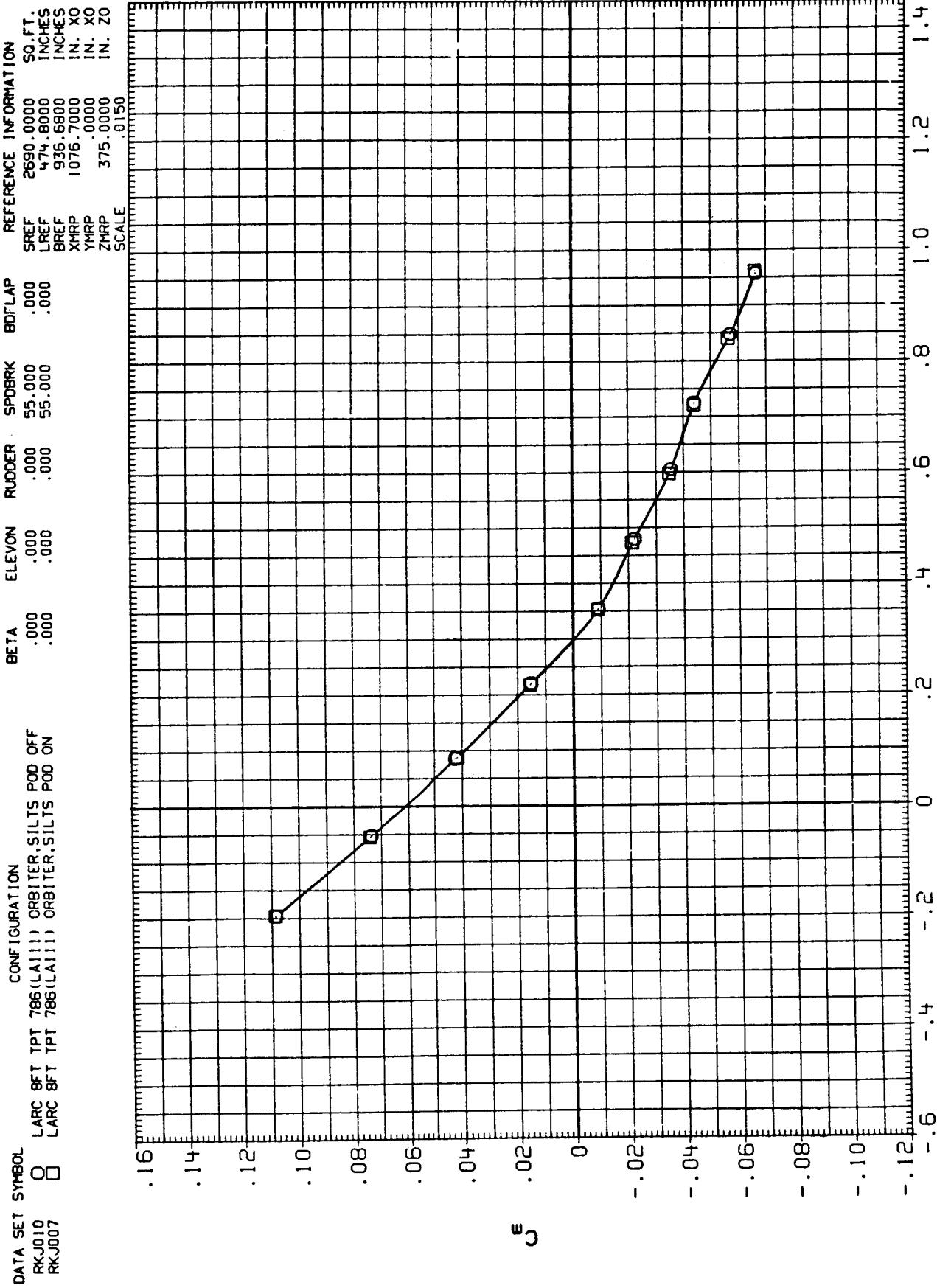


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(D) MACH = 1.20

PAGE 59

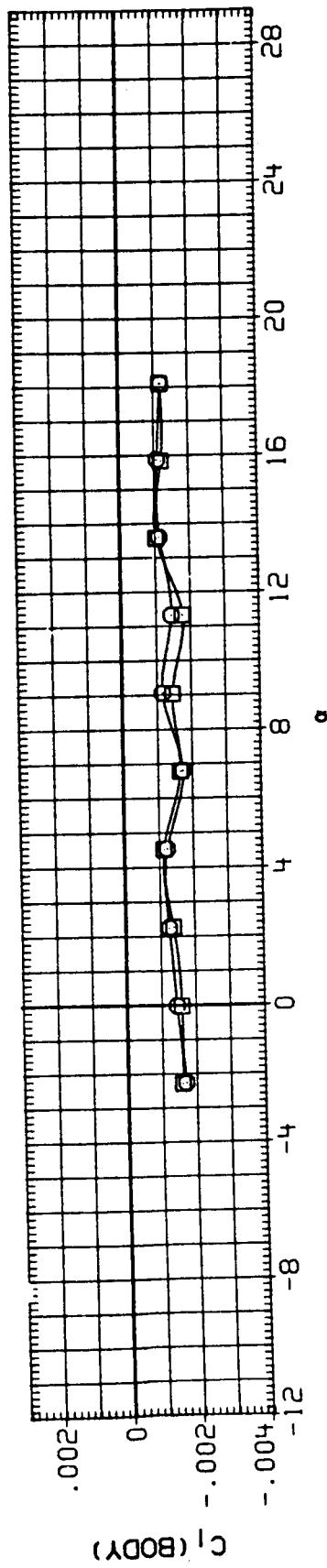
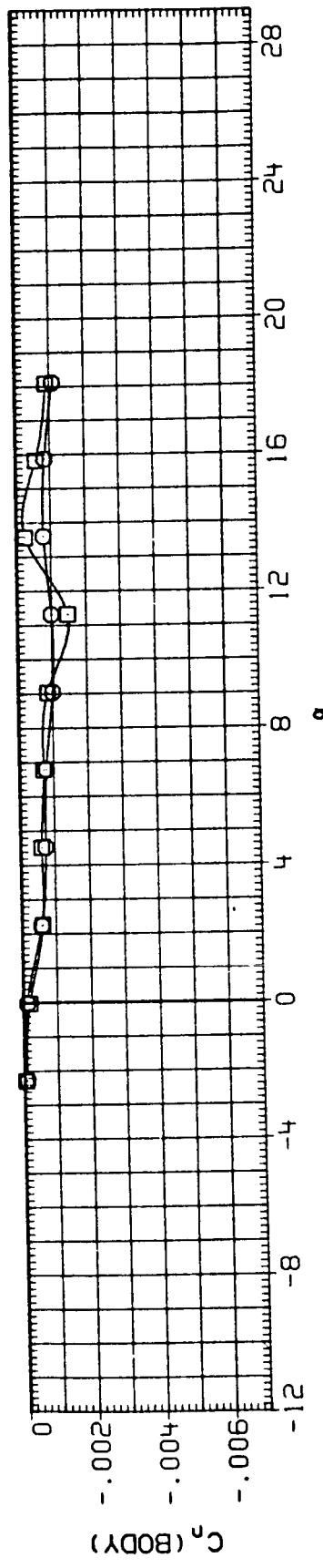
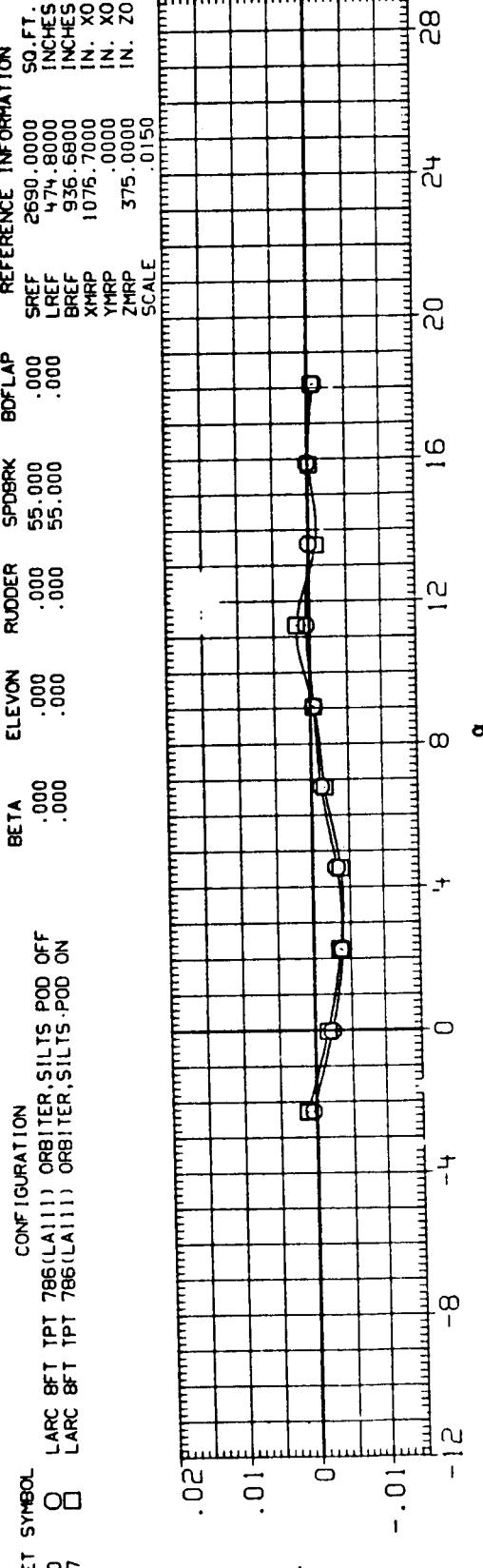


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS
OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES
(D) MACH = 1.20

PAGE 60

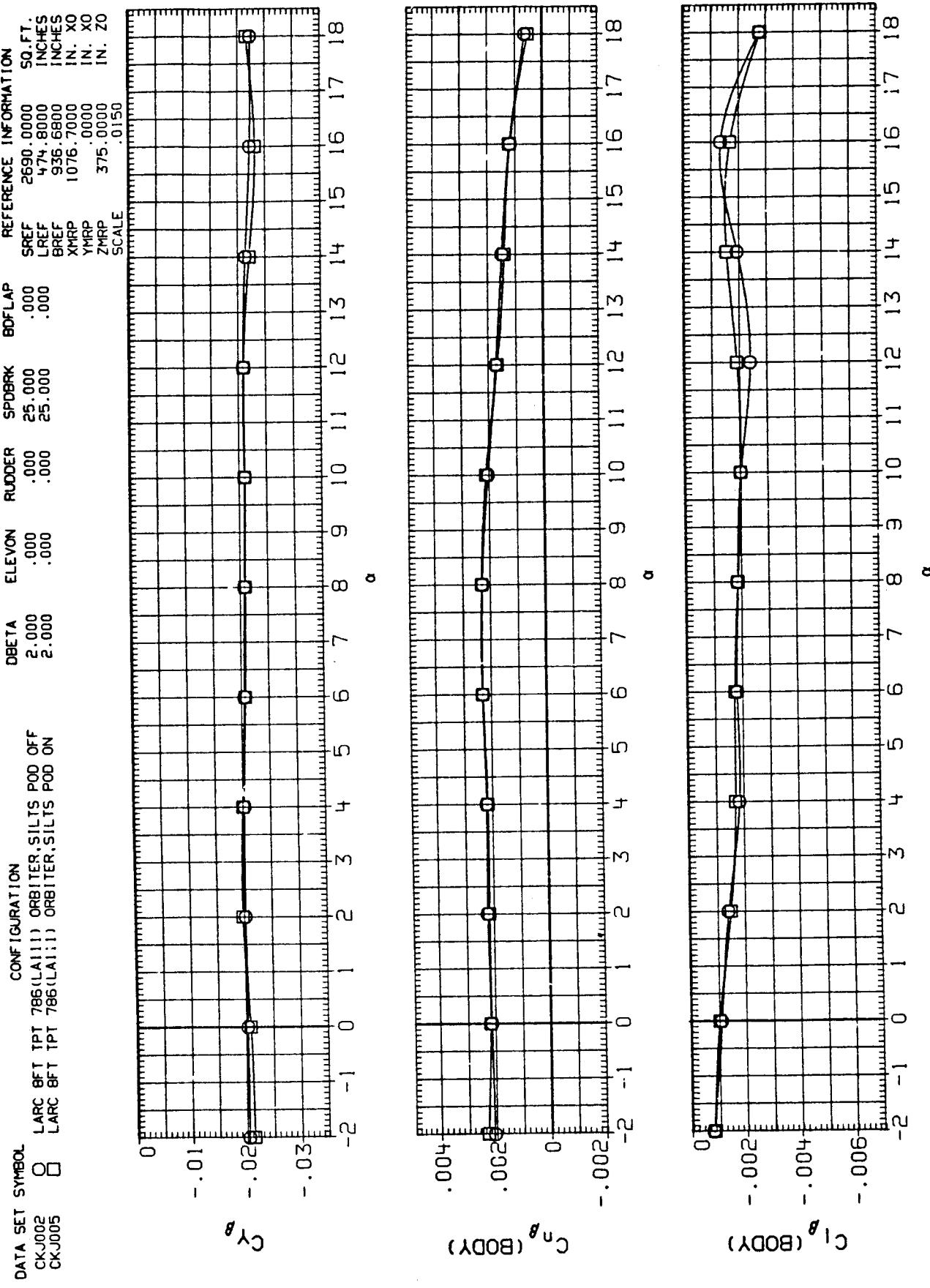


FIGURE 6. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A) MACH = .80

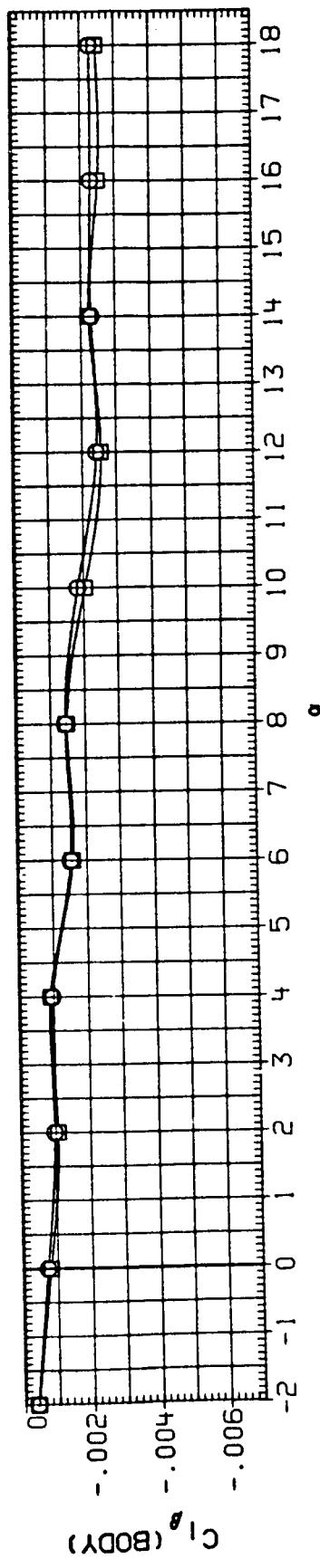
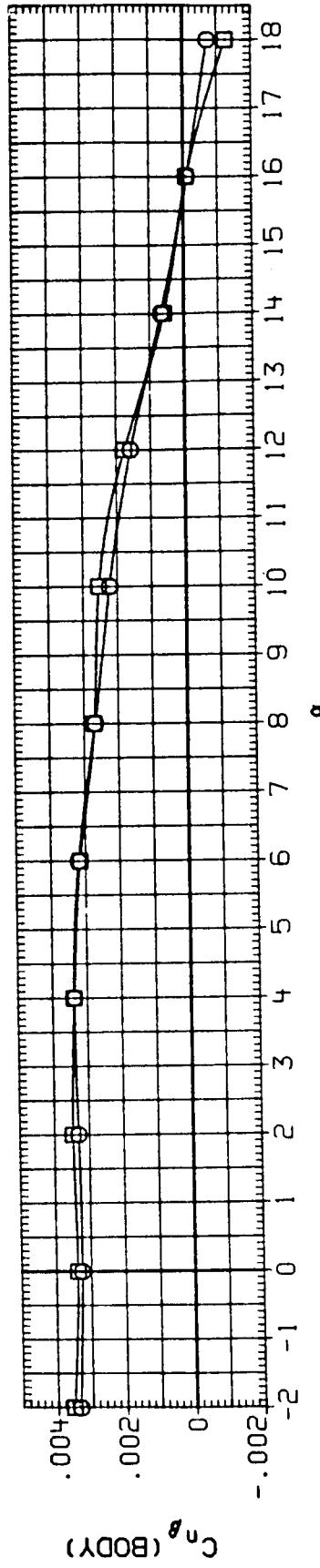
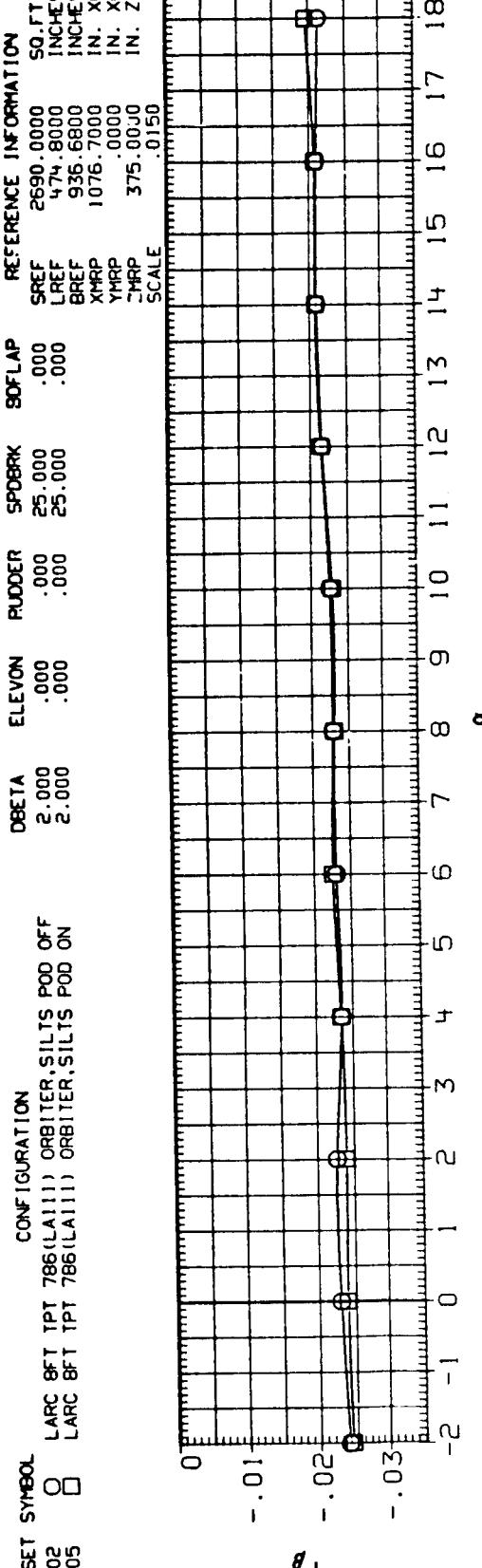


FIGURE 6. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES
(B) MACH = .90

PAGE 32

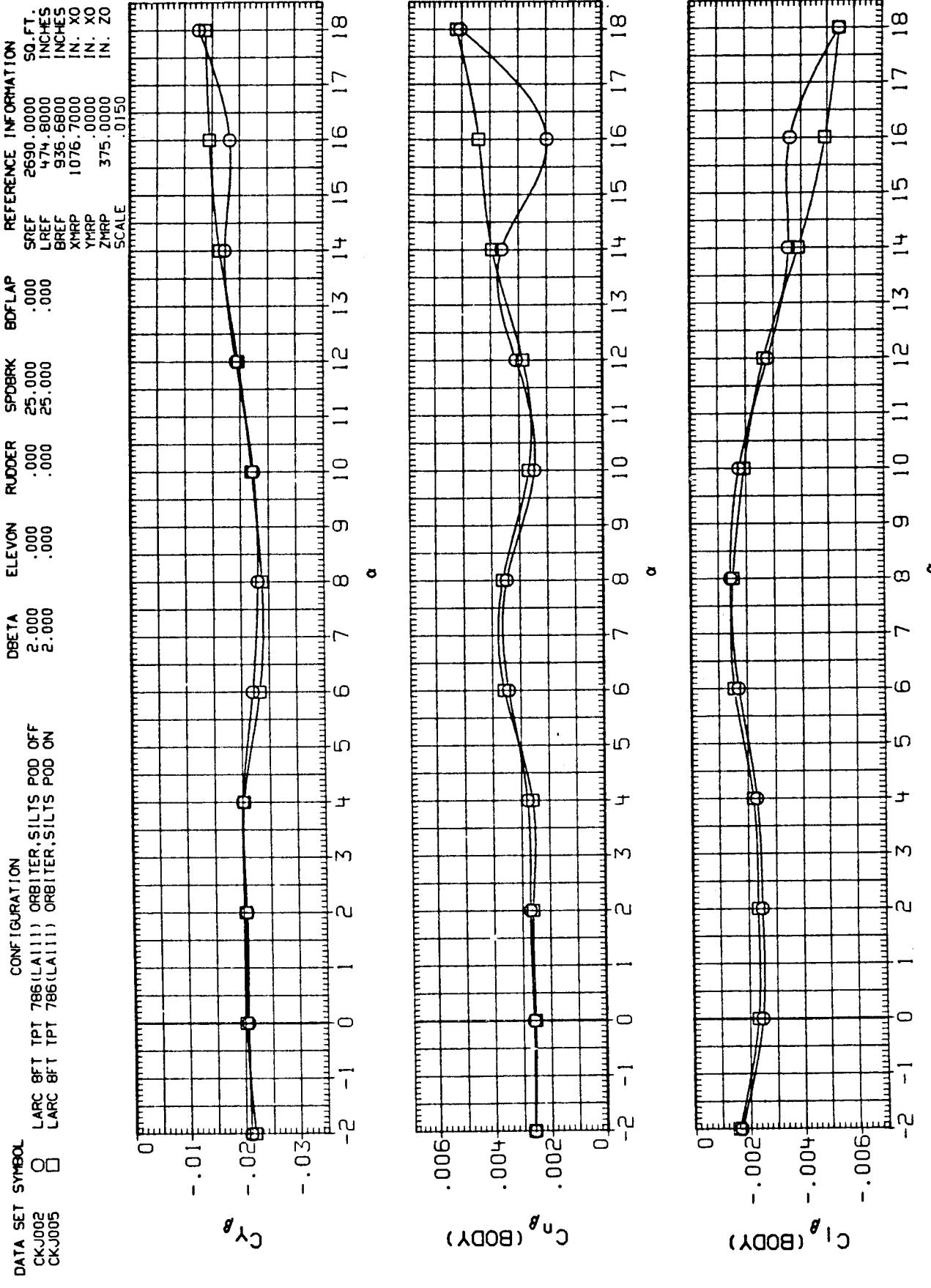


FIGURE 6. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A) MACH = .95

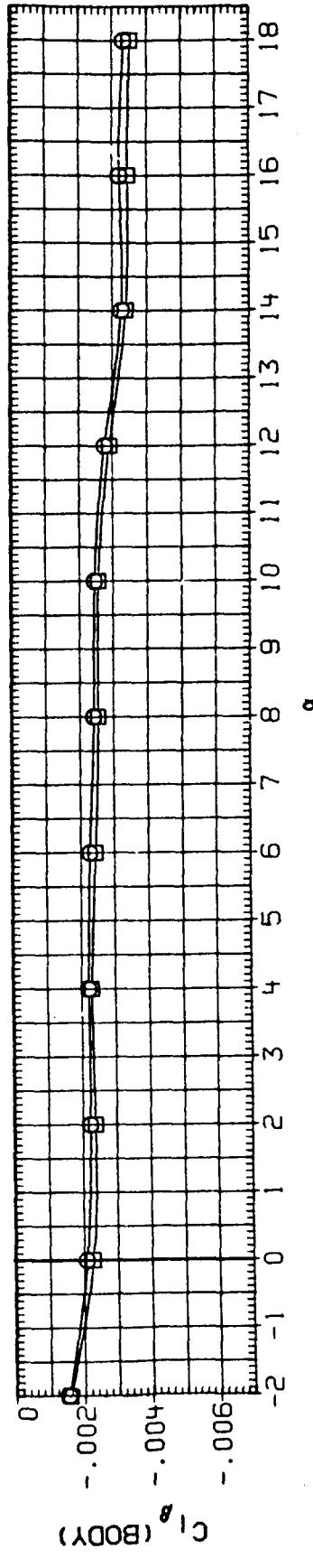
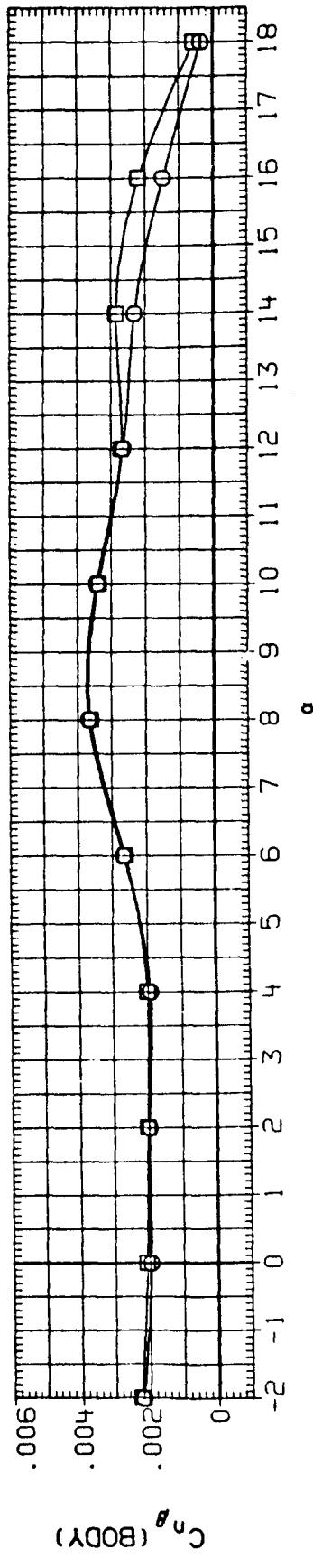
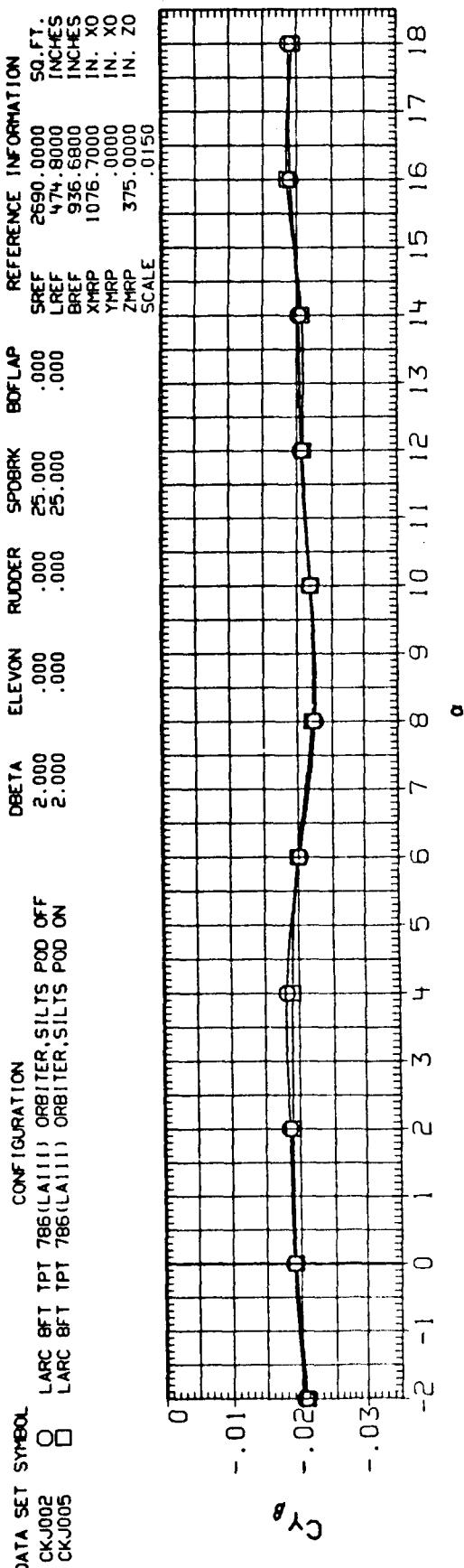


FIGURE 6. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE
 (A) MACH = .98
 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

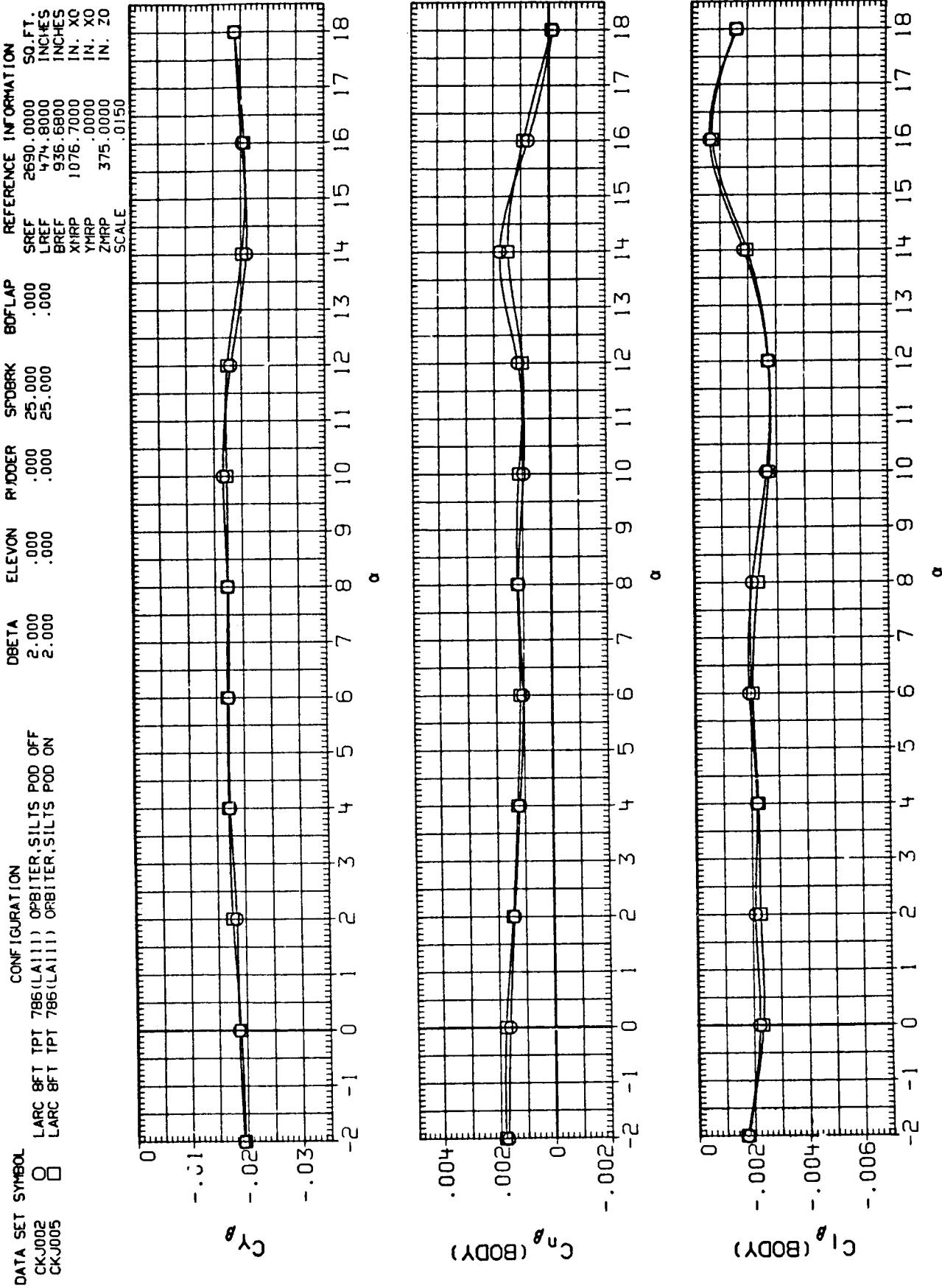


FIGURE 6. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = 1.12

PAGE 65

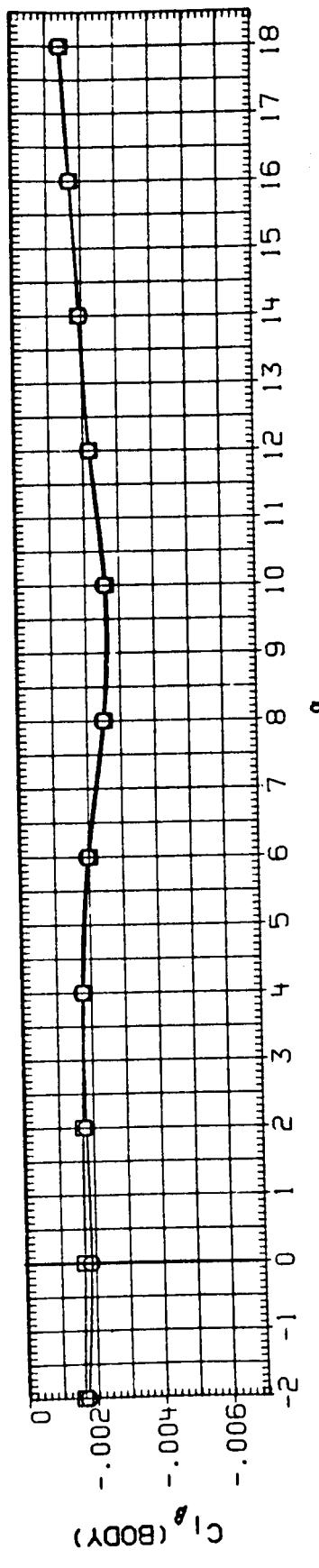
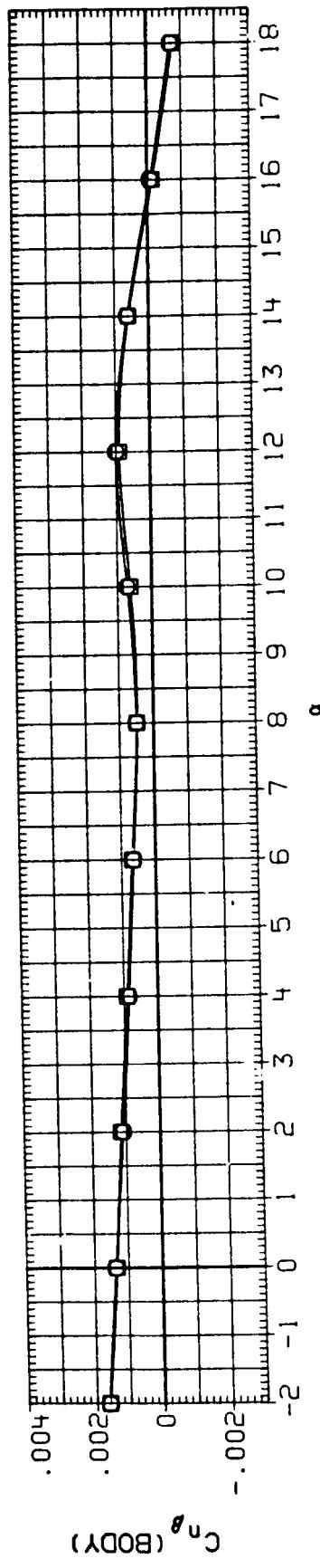
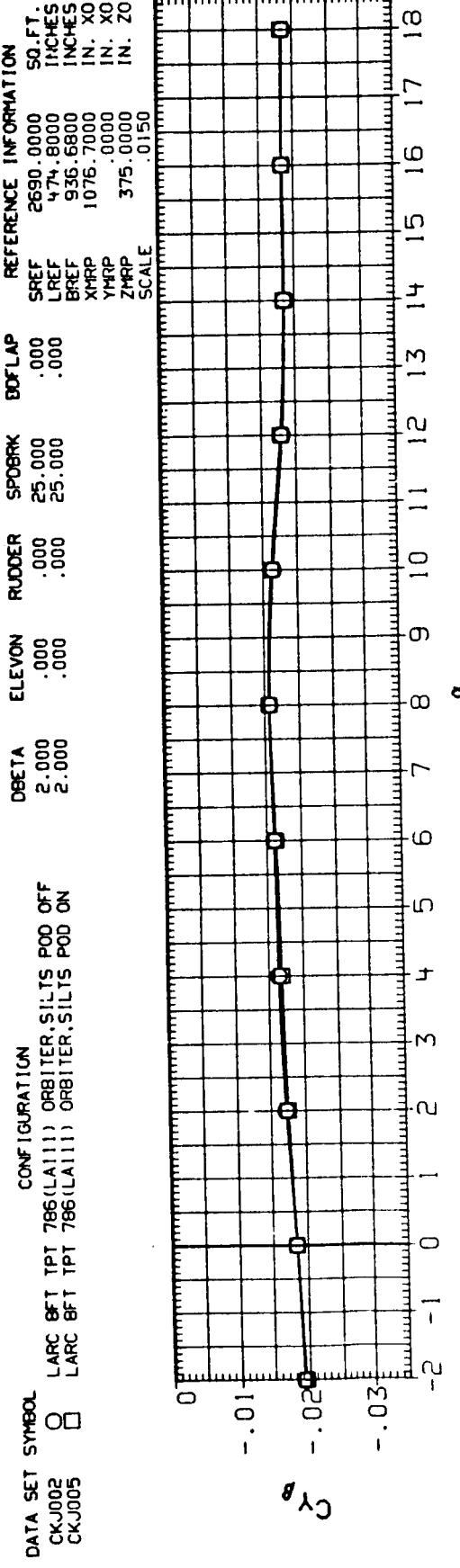


FIGURE 6. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C)MACH = 1.20

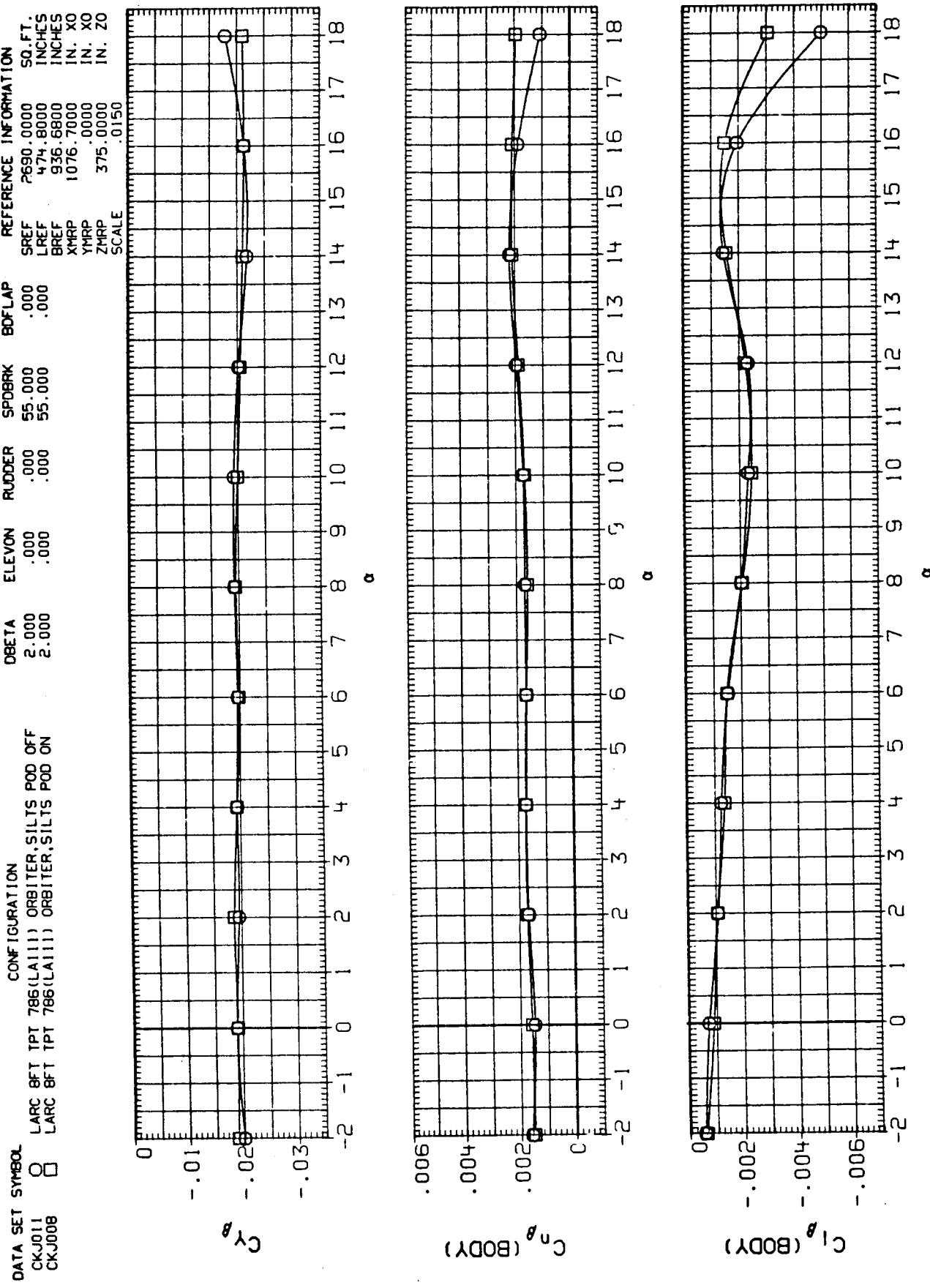


FIGURE 7. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

PAGE 67

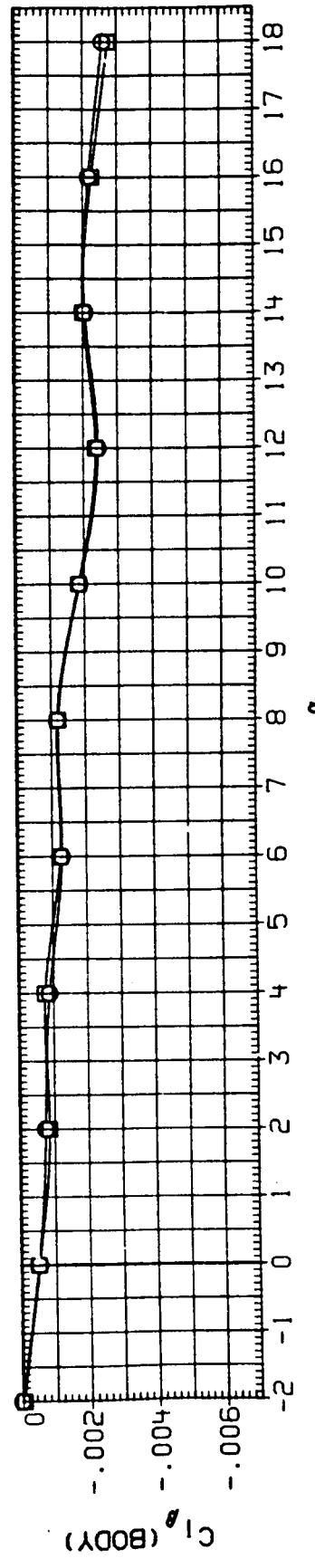
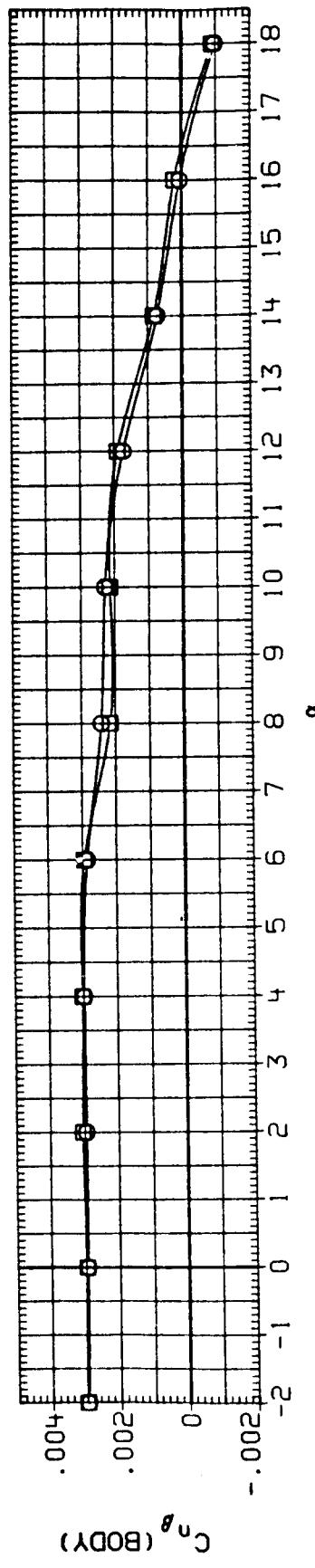
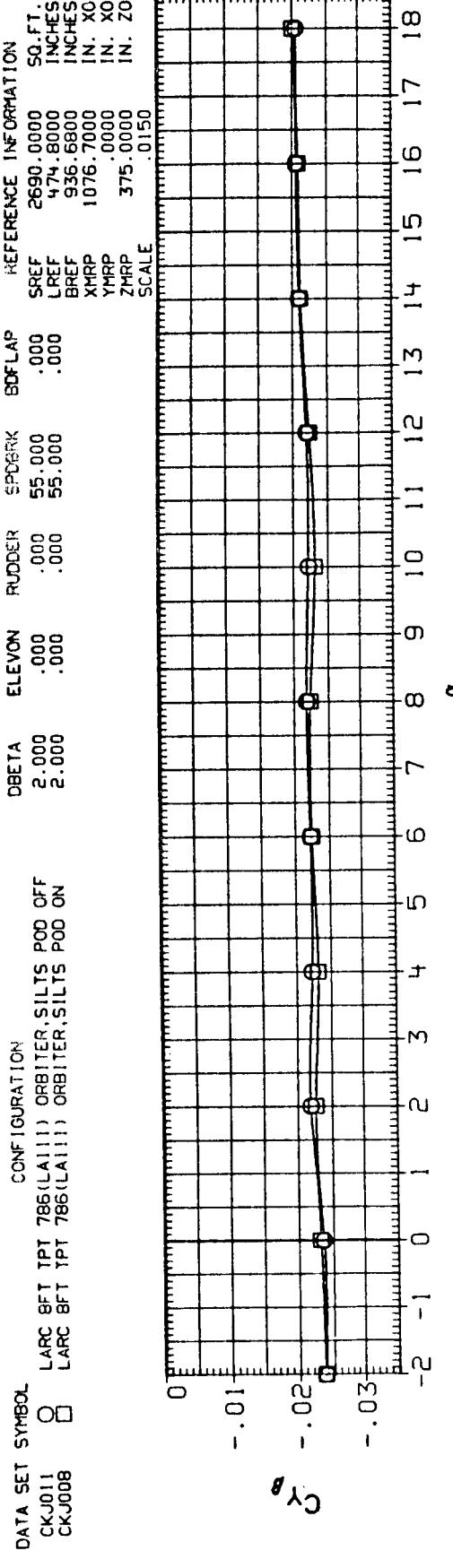


FIGURE 7. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE
 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES
(B) MACH = .90

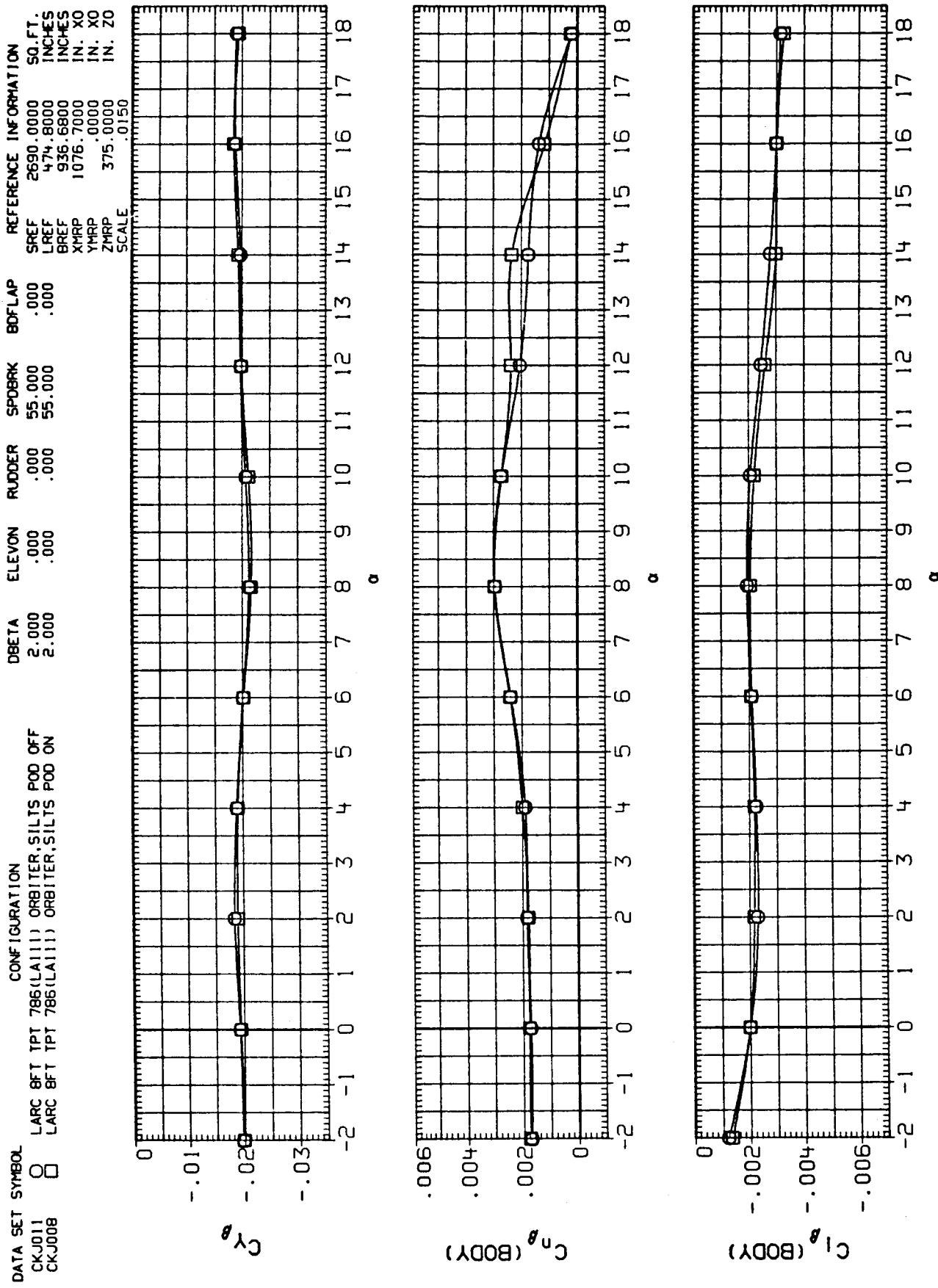


FIGURE 7. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C) MACH = .98

PAGE 69

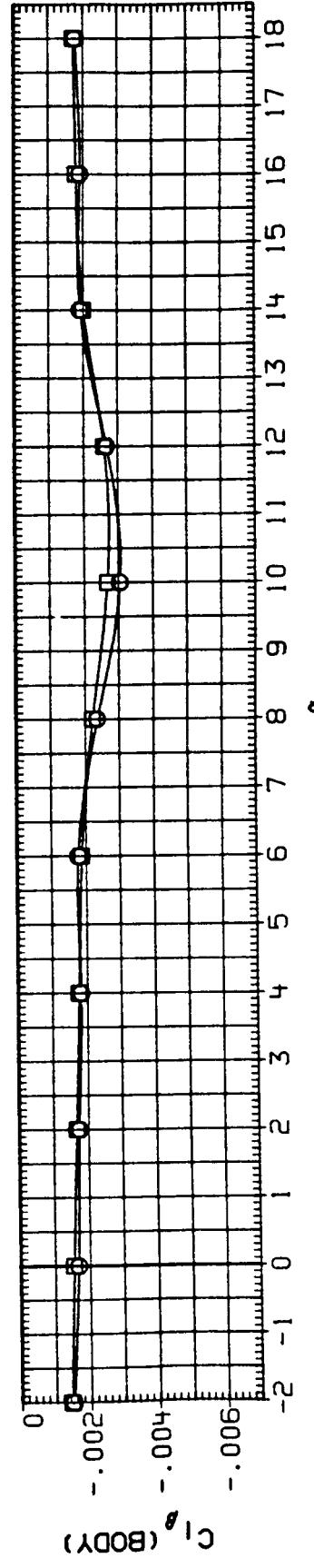
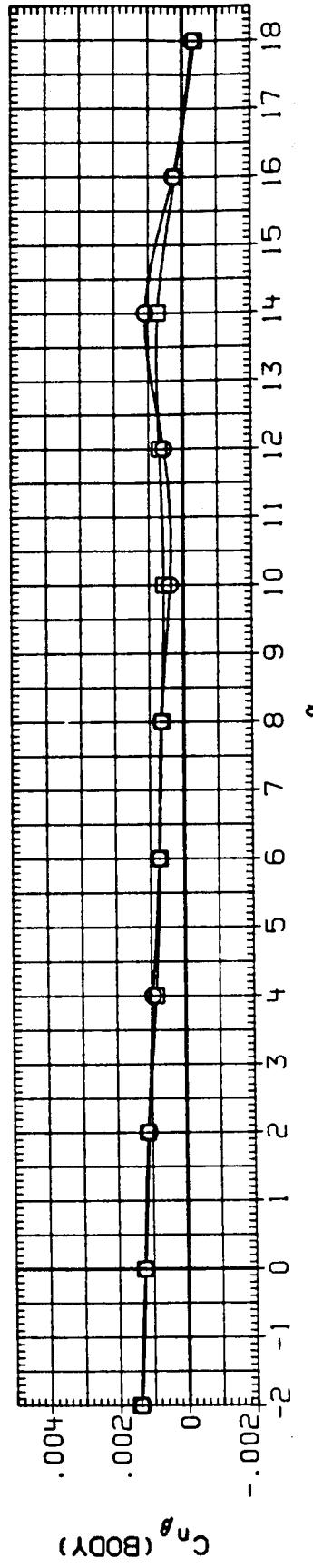
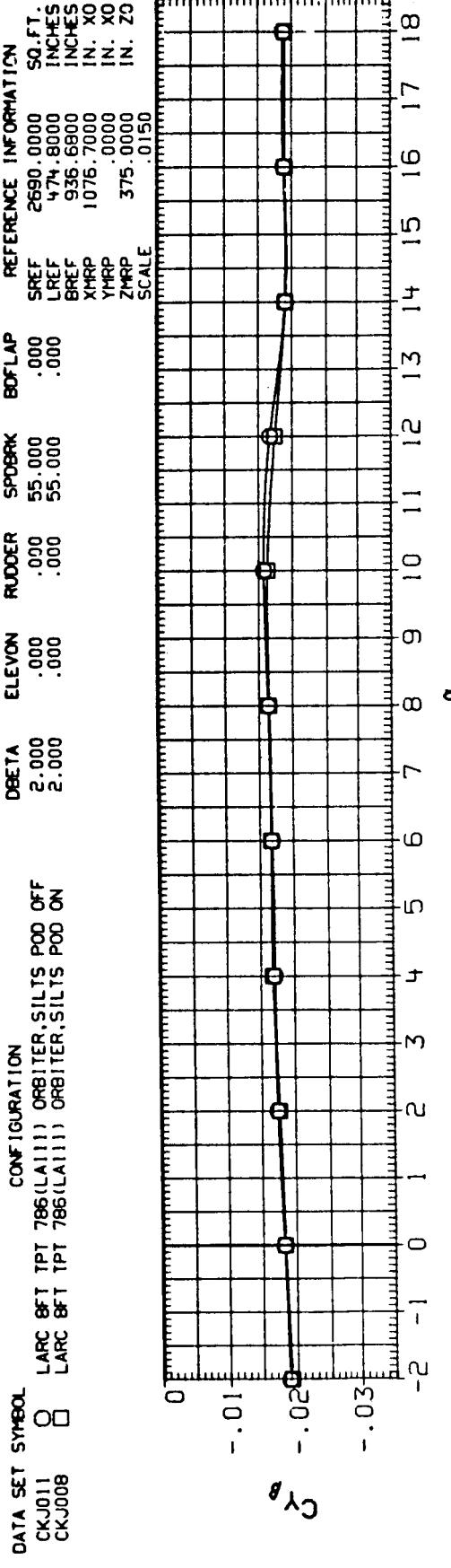


FIGURE 7. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(D) MACH = 1.20

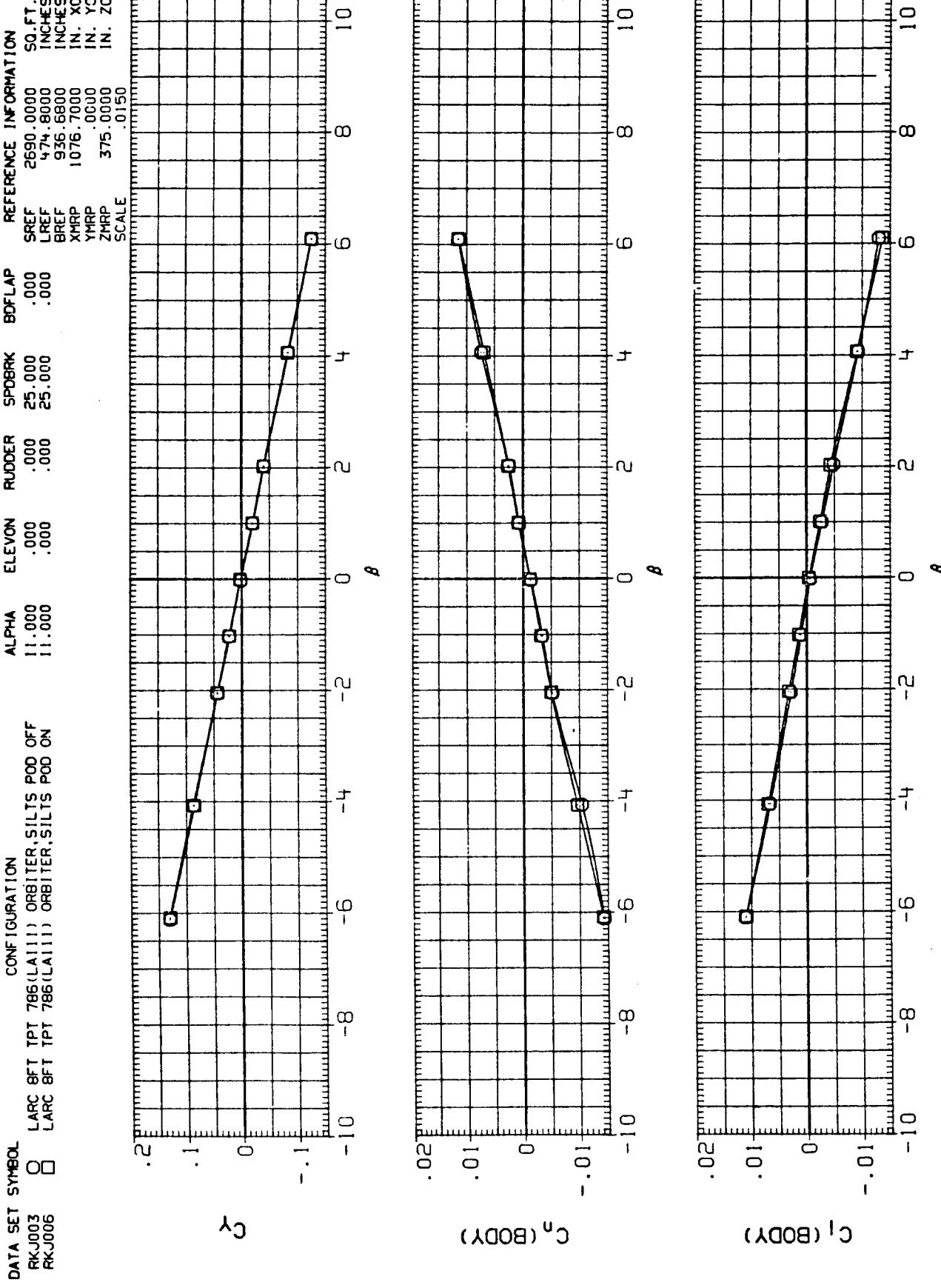


FIGURE 8. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES
(A)MACH = .80

DATA SET SYMBOL

RKJ003 O LARC & TPT 786(LA11) ORBITER, SILTS POD OFF
 RKJ006 □ LARC & TPT 786(LA11) ORBITER, SILTS POD ON

REFERENCE INFORMATION

	ALPHA	ELEVON	RUDDER	SPOILER	BOFLAP	
RKJ003	11.000	.000	.000	25.000	.000	SREF 2690.0000 50.FT.
RKJ006	11.000	.000	.000	25.000	.000	LREF 474.8000 INCHES
						BREF 936.6800 INCHES
						XMRP 1076.7000 IN. XO
						YMRP .0000 IN. YO
						ZMRP 375.0000 IN. ZO
						SCALE .0150

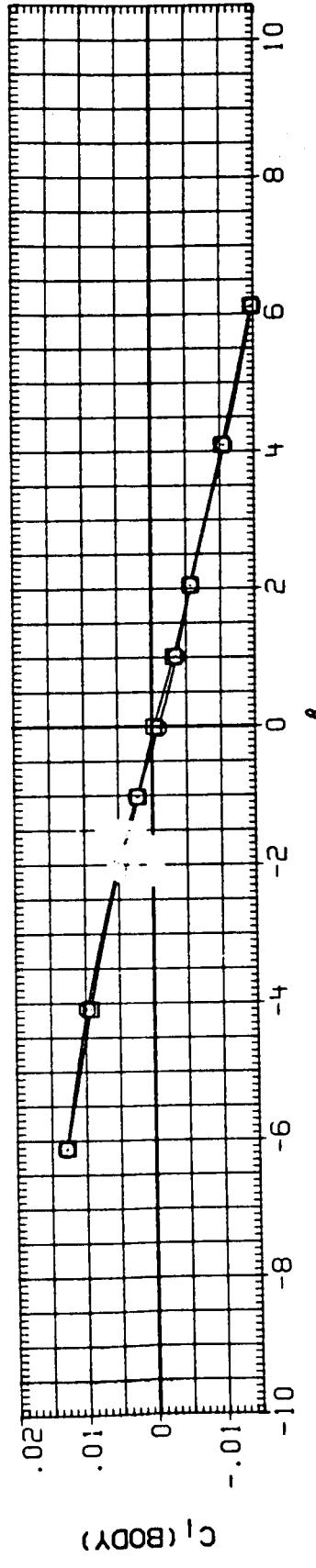
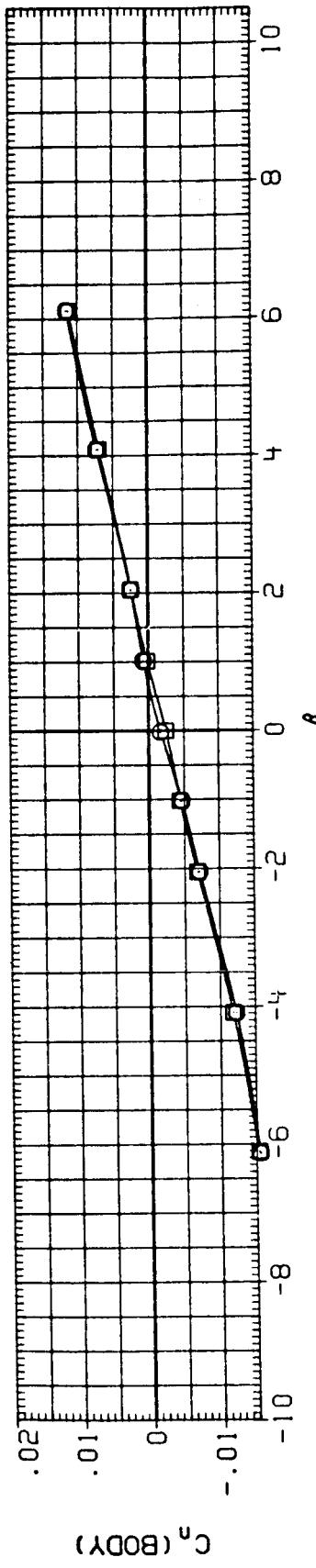
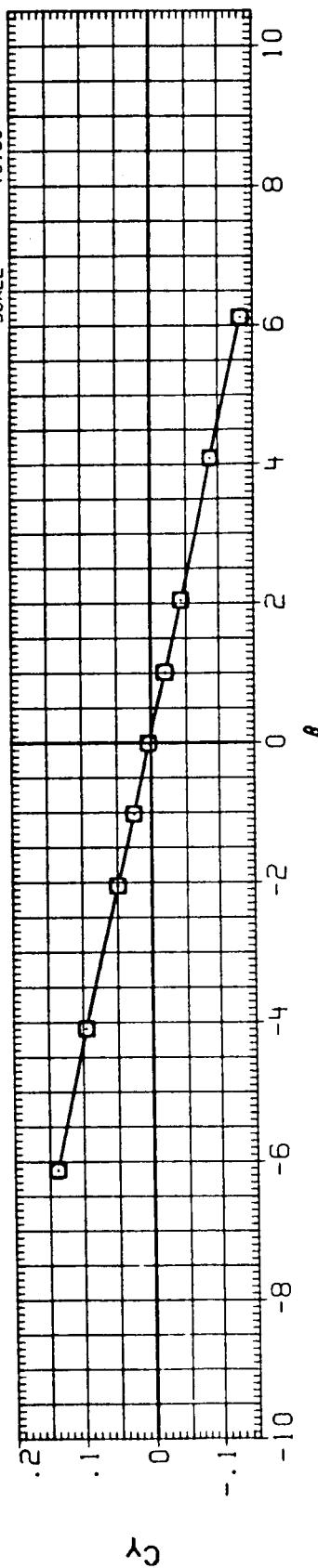


FIGURE 8. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = .90

PAGE 72

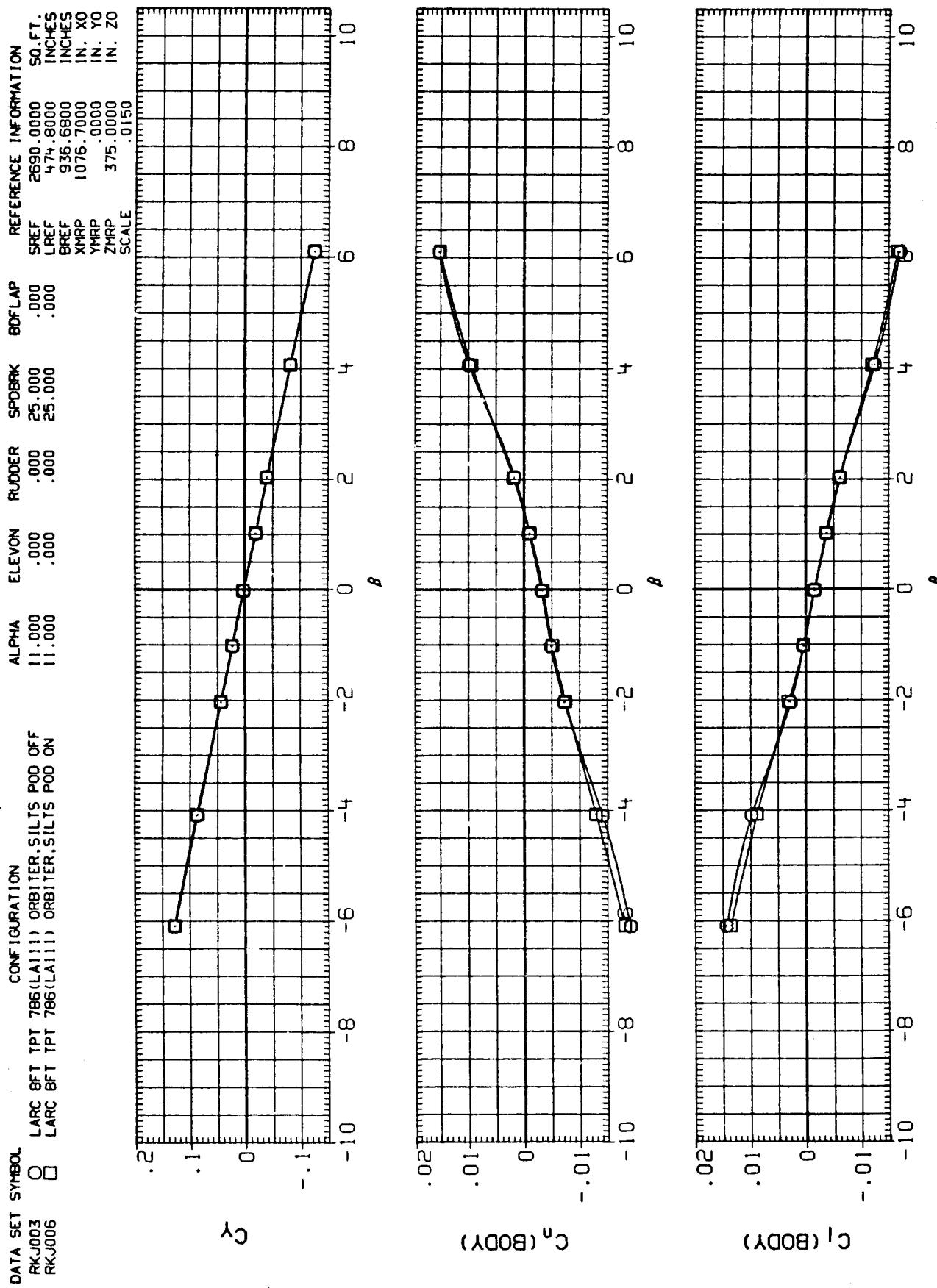


FIGURE 8. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C) MACH = .95

PAGE 73

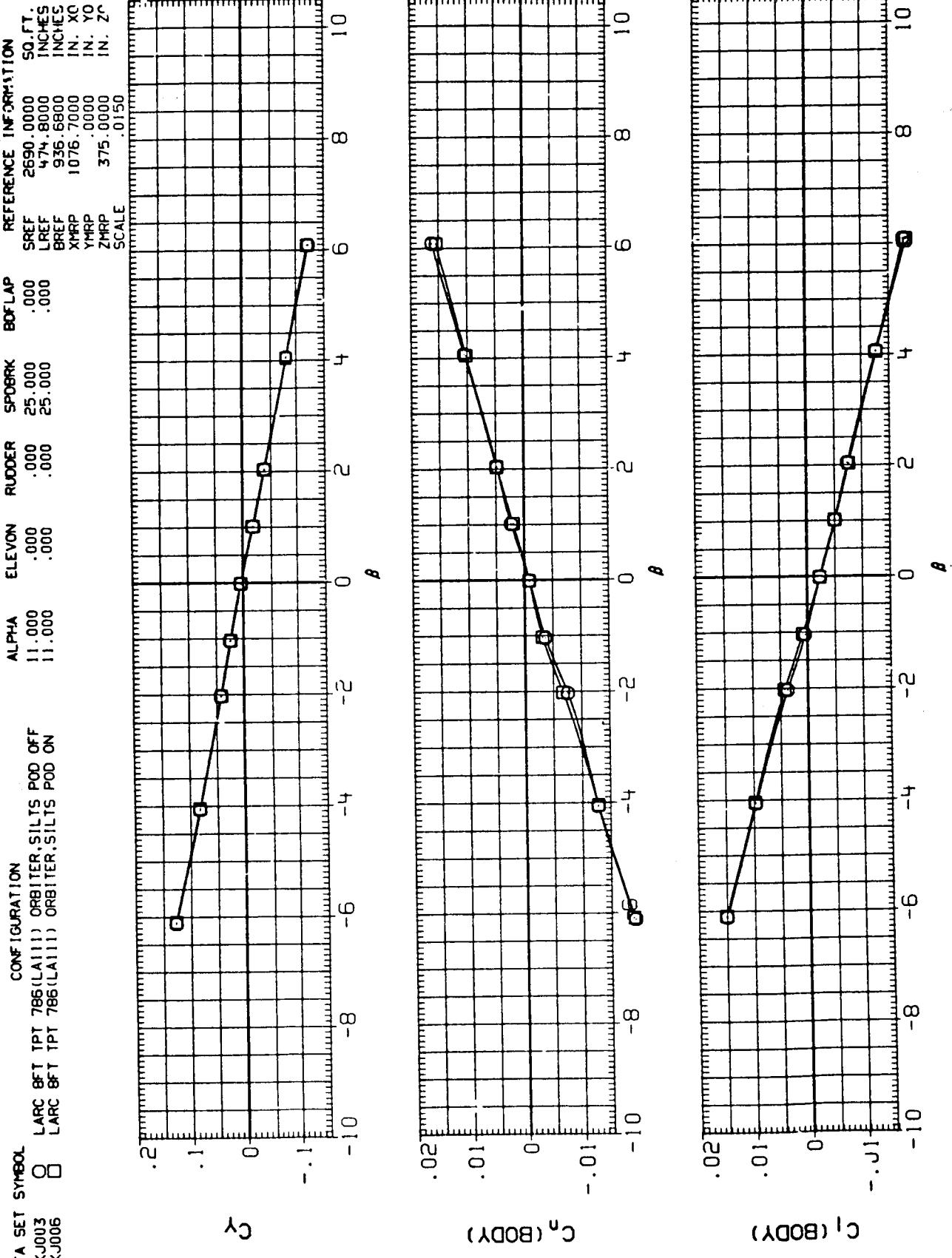


FIGURE 8. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(D) MACH = .98

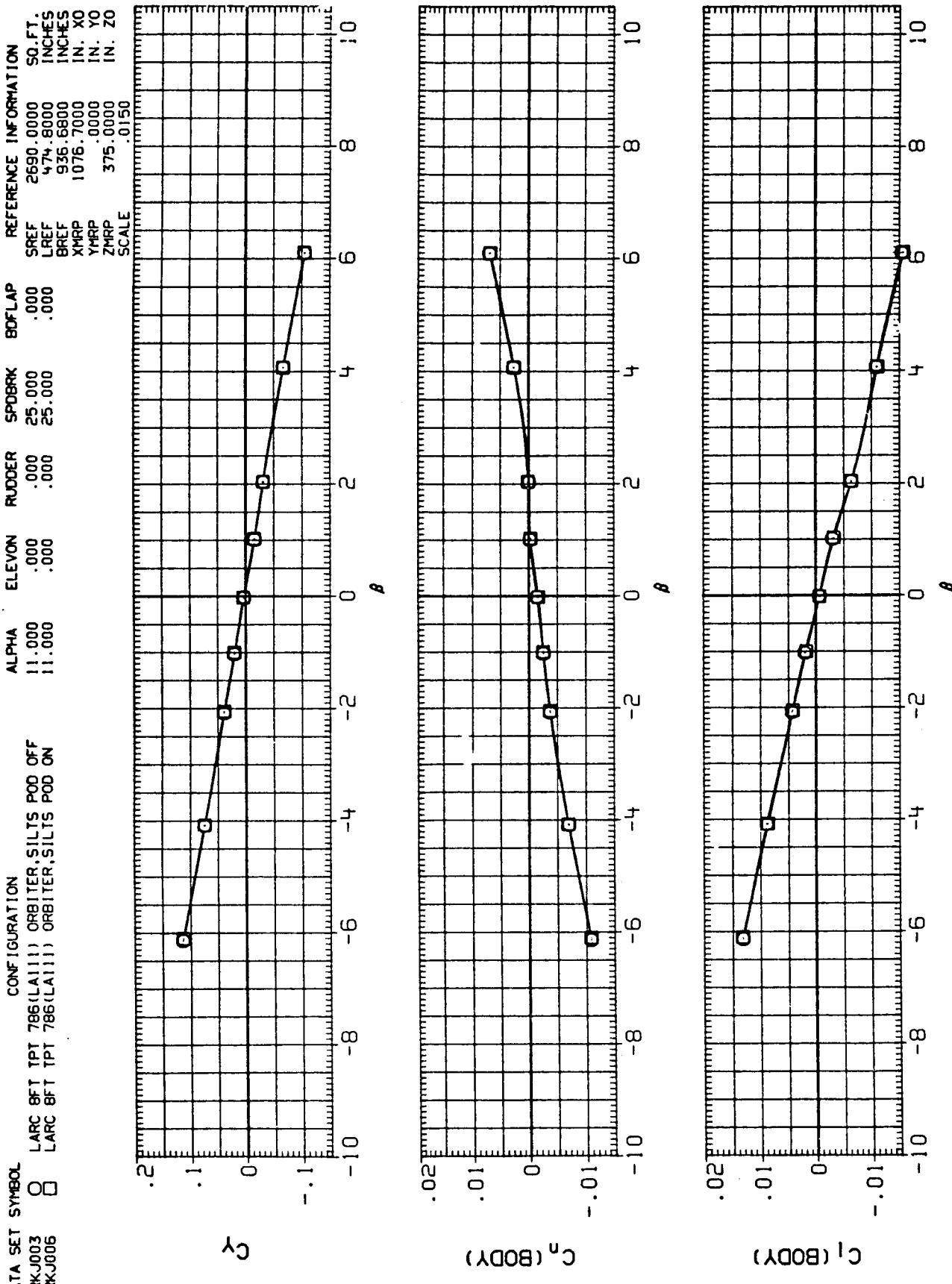


FIGURE 8. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(E)MACH = 1.12

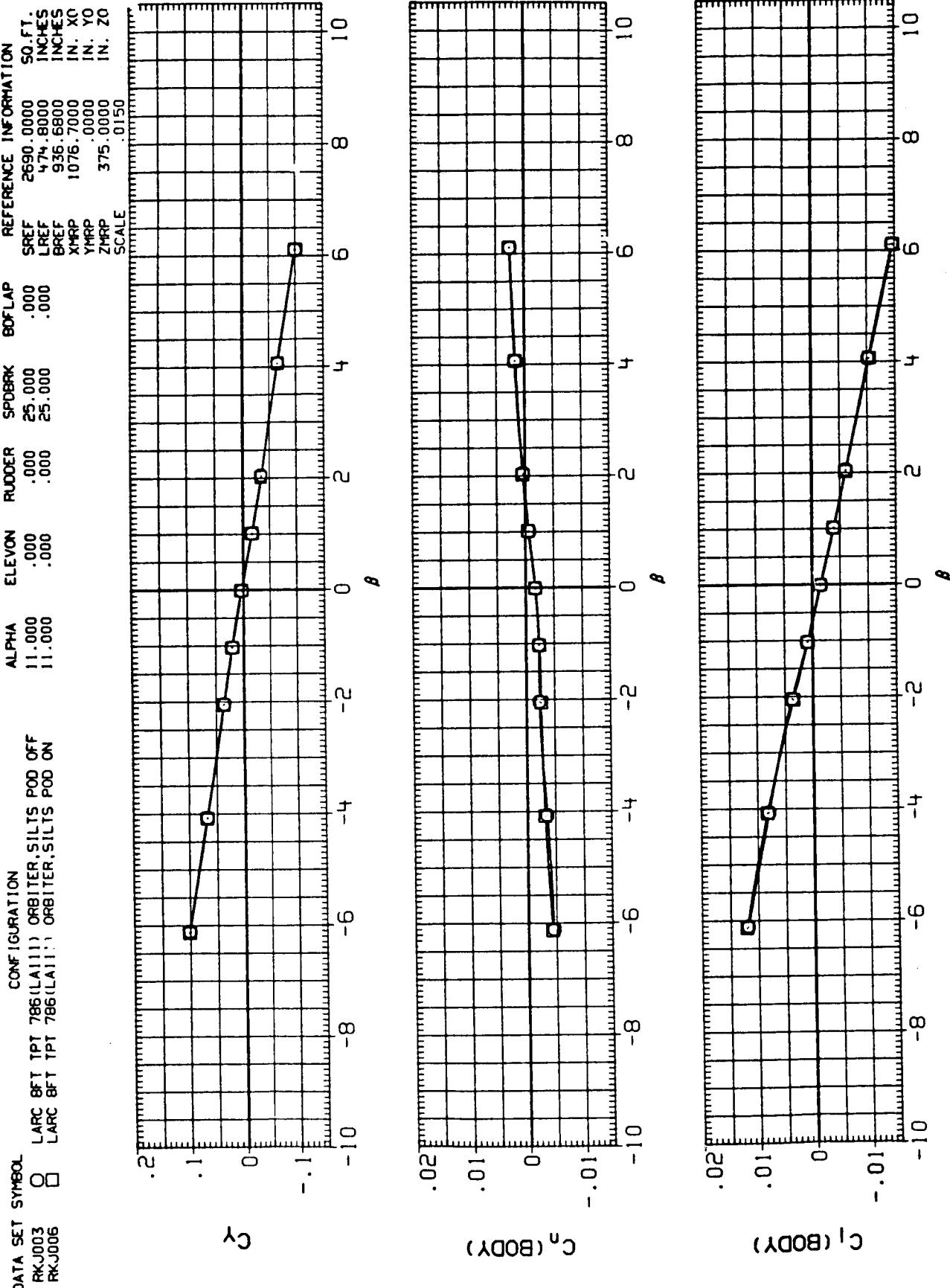


FIGURE 8. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(F) MACH = 1.20

PAGE 76

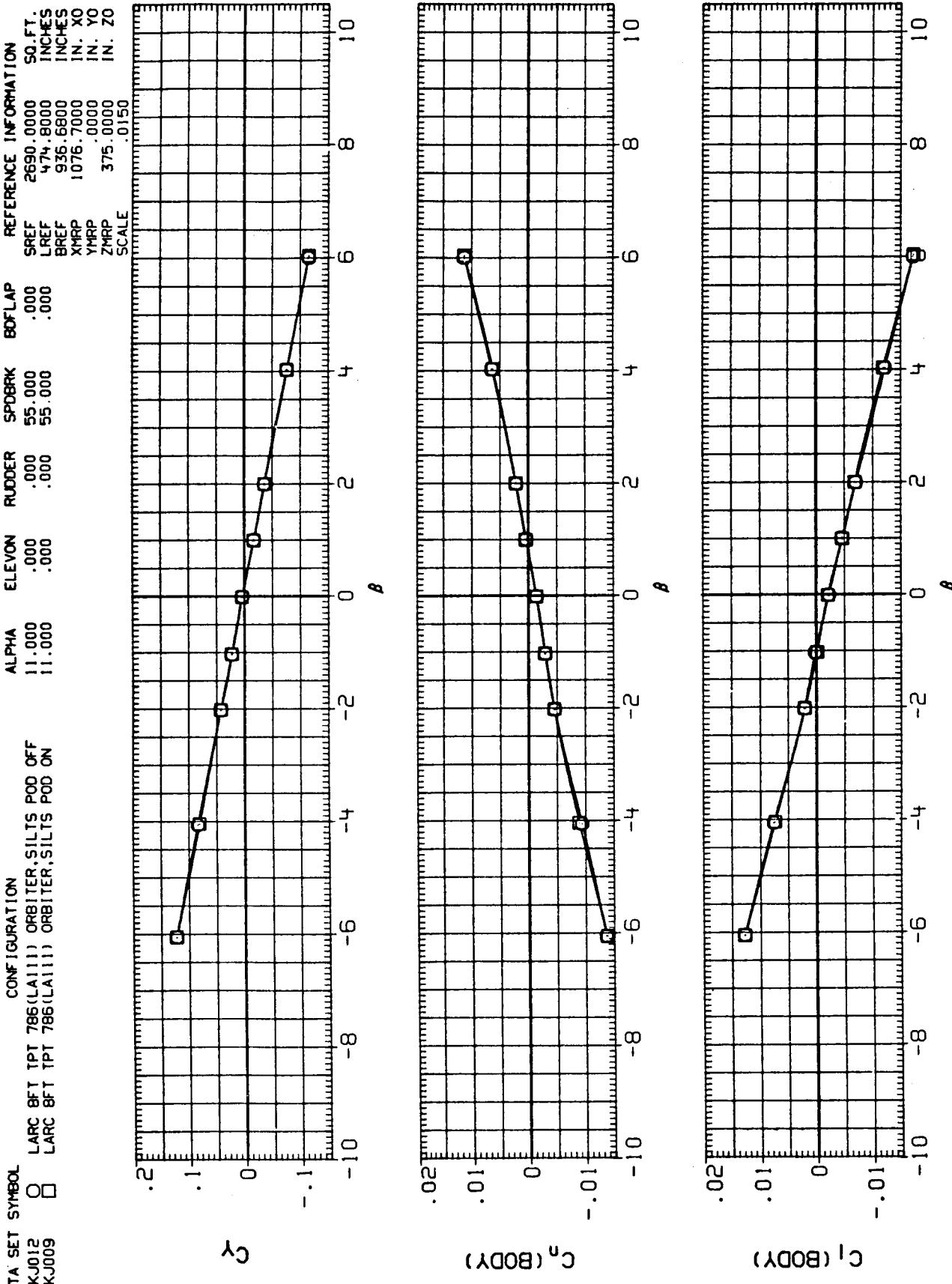


FIGURE 9. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A) MACH = .60

PAGE 77

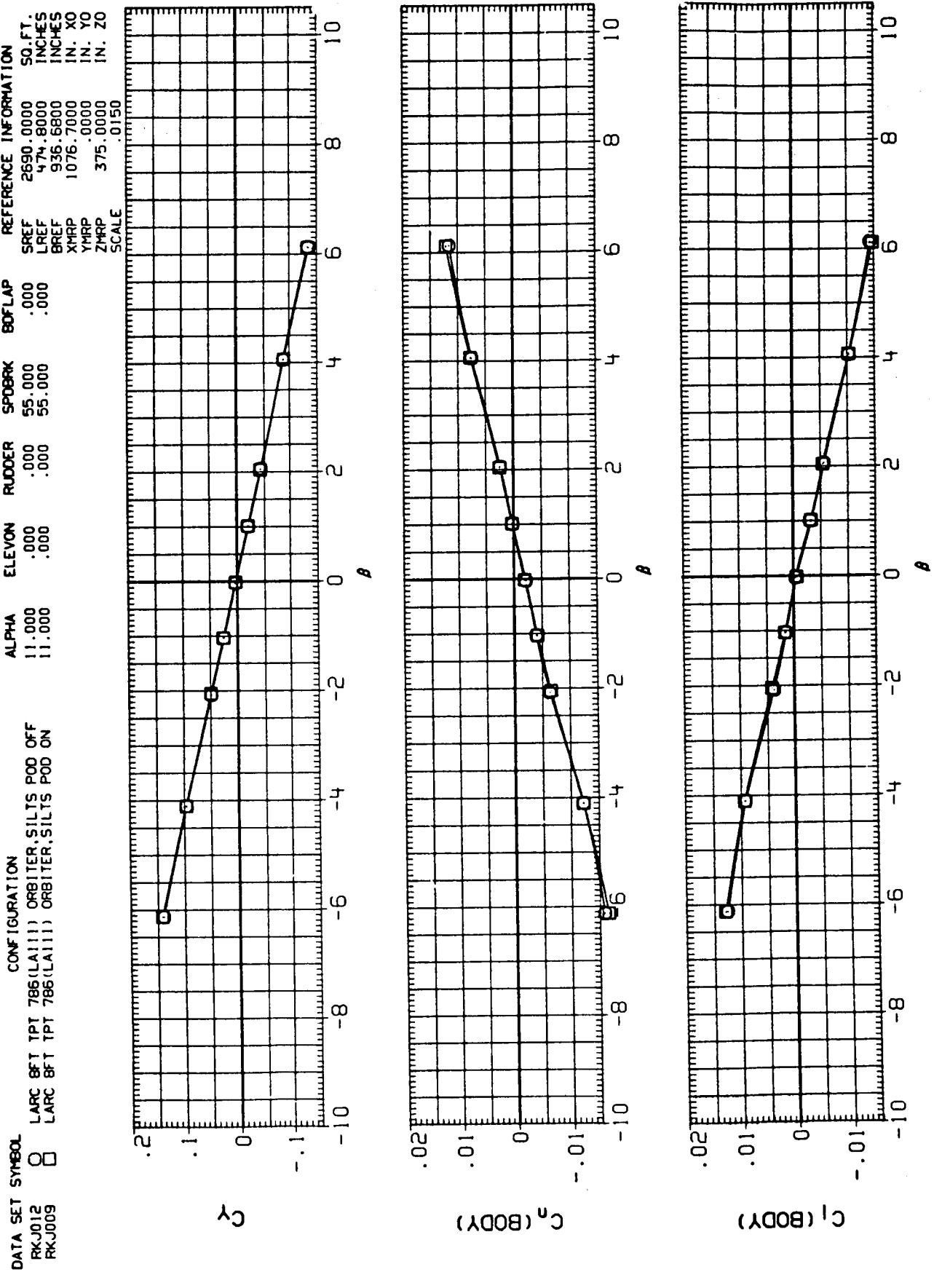


FIGURE 9. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(B) MACH = .90

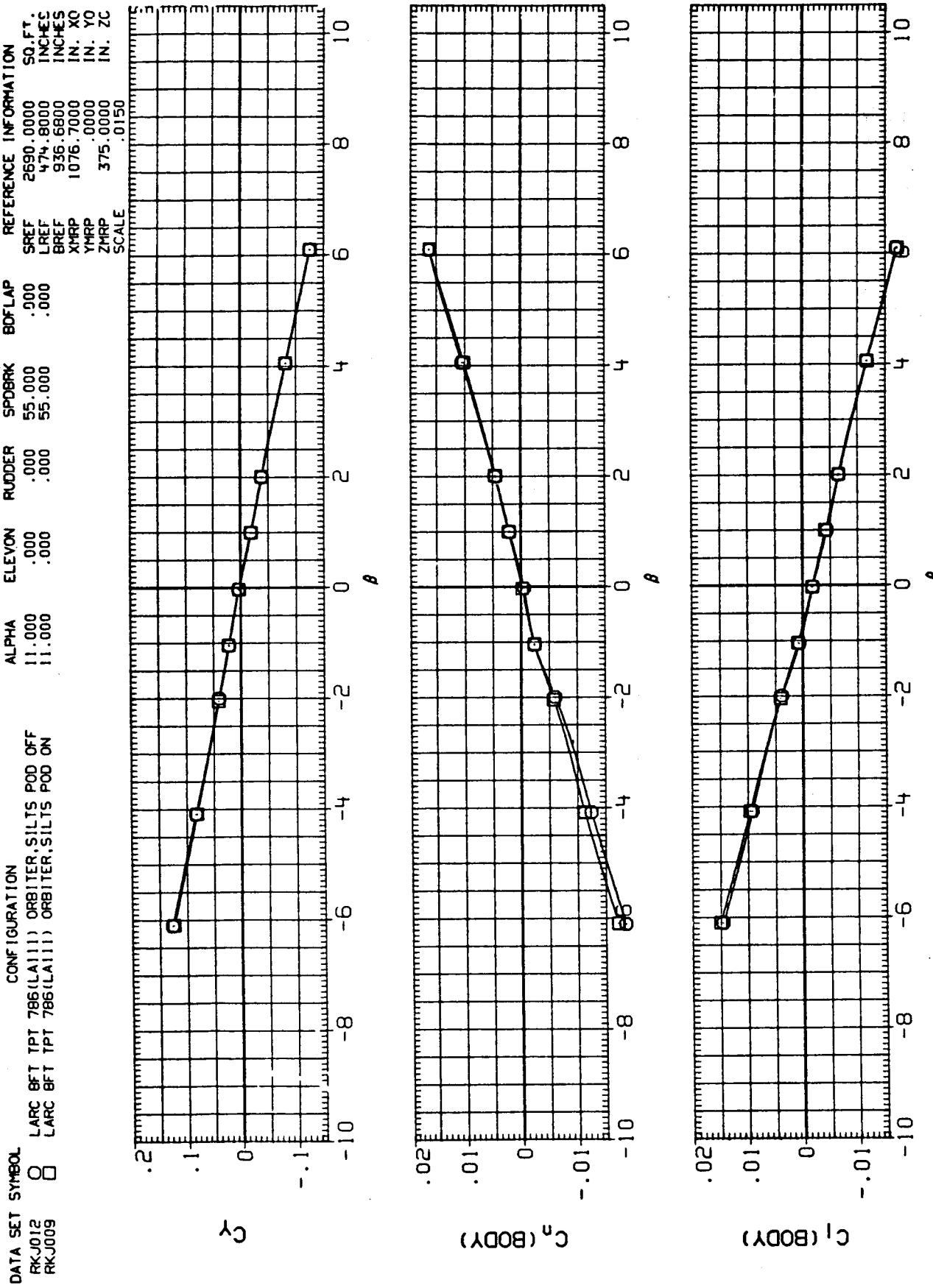


FIGURE 9. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C) MACH = .98

PAGE 72

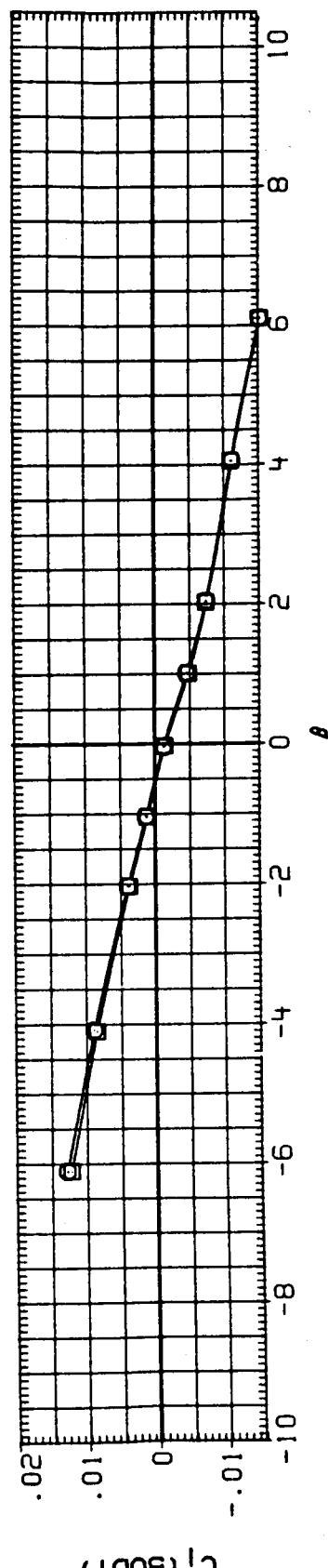
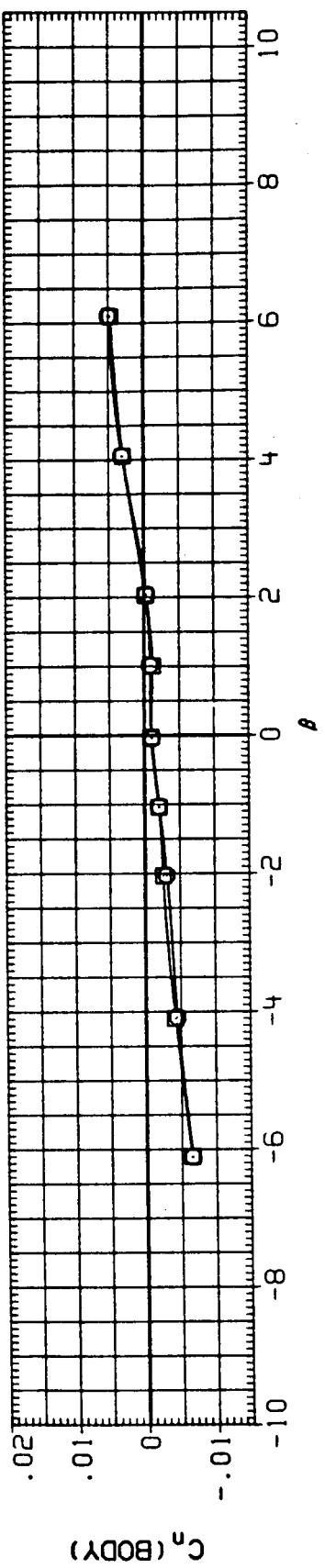
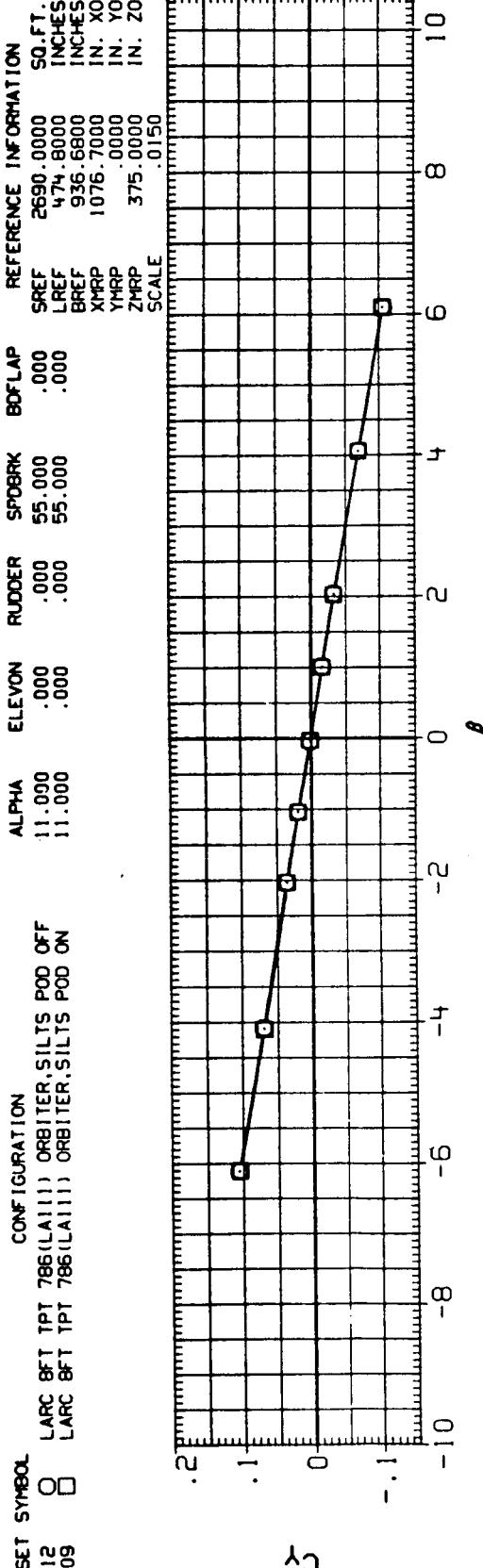


FIGURE 9. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE
0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(D) MACH = 1.20

PAGE 80

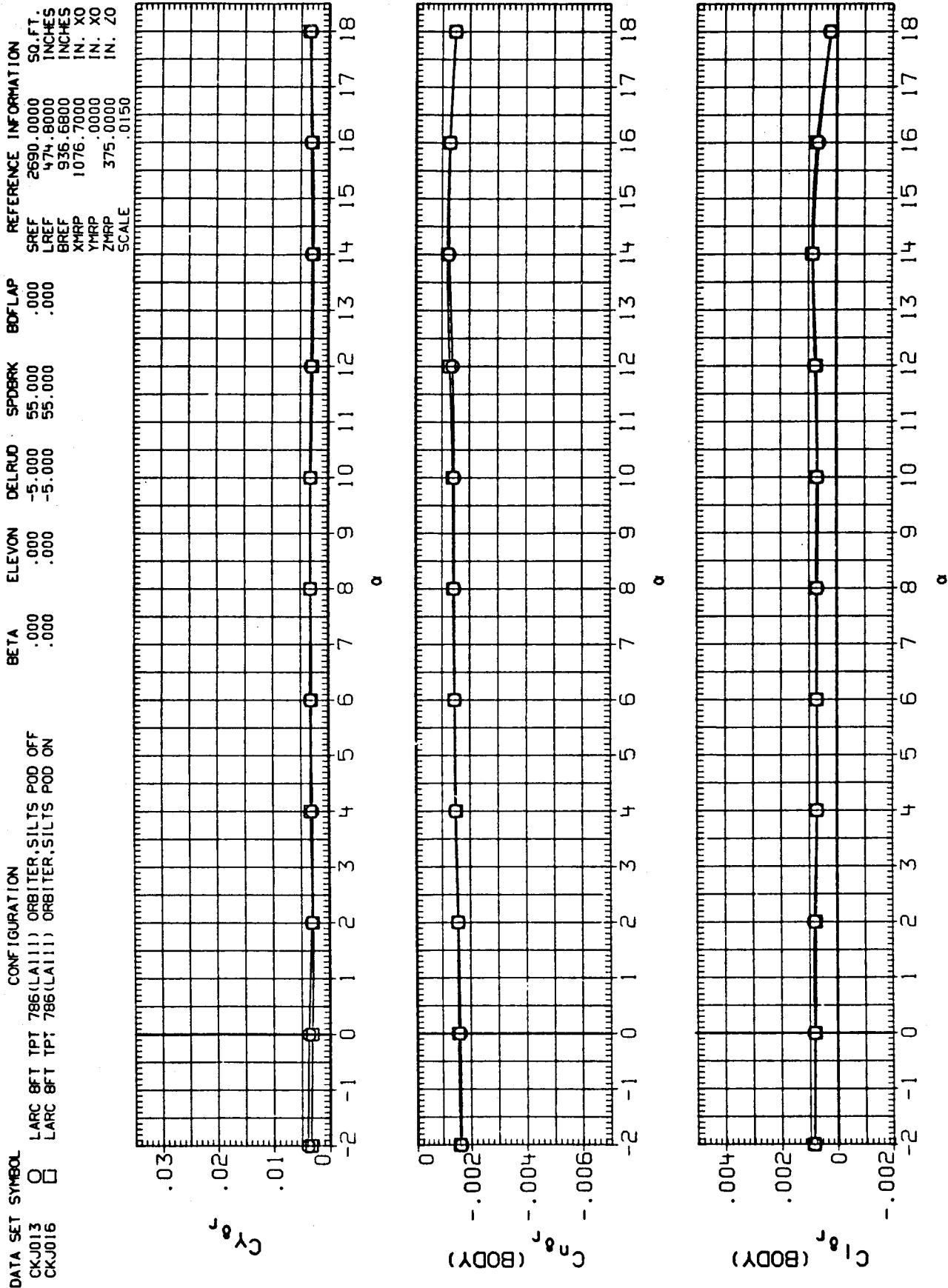


FIGURE 10. EFFECT OF SILTS POD ON THE RUDDER EFFECTIVENESS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A) MACH = .60

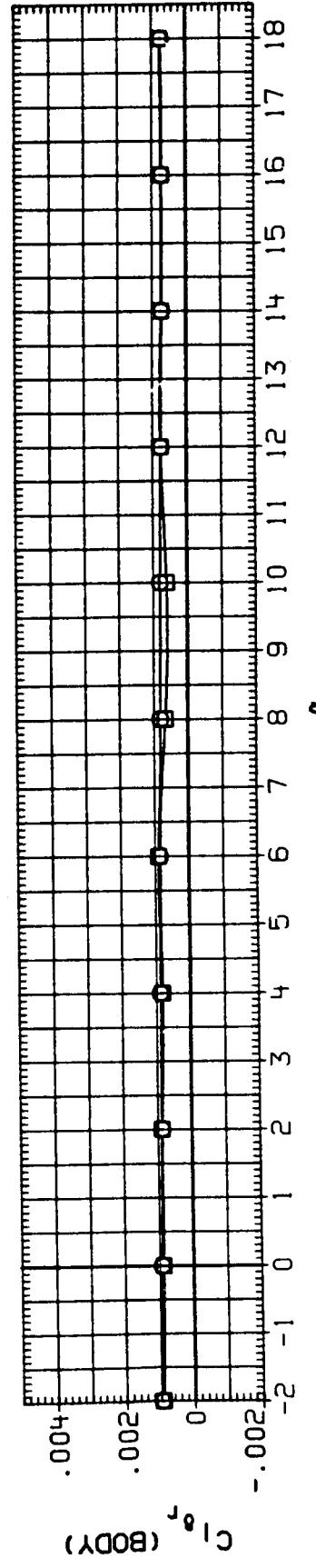
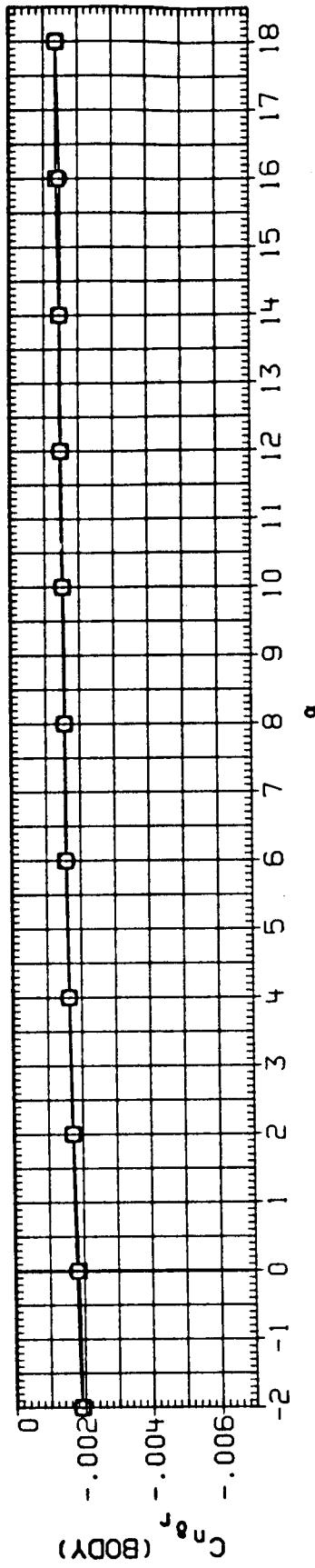
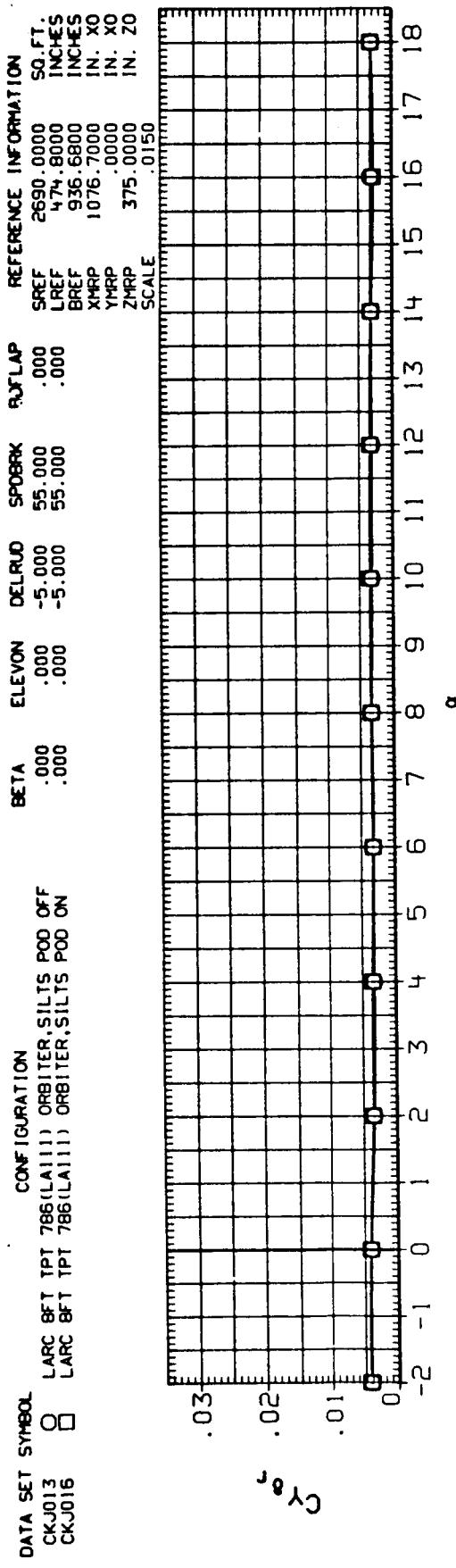


FIGURE 10. EFFECT OF SILTS POD ON THE RUDDER EFFECTIVENESS OF THE 0.015 SCALE
(B) MACH = .90

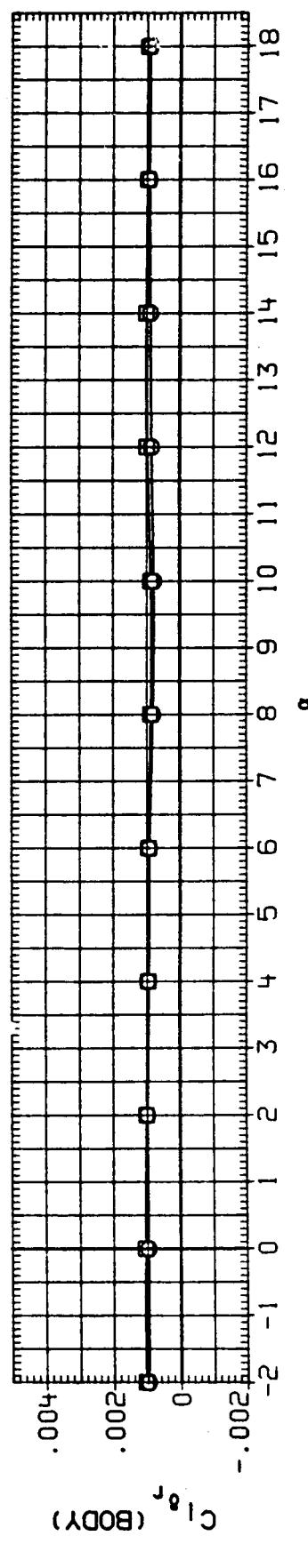
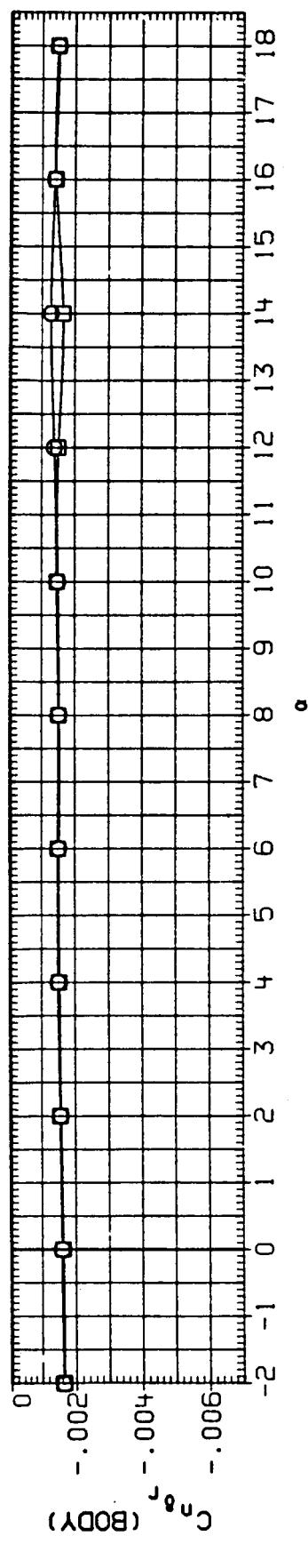
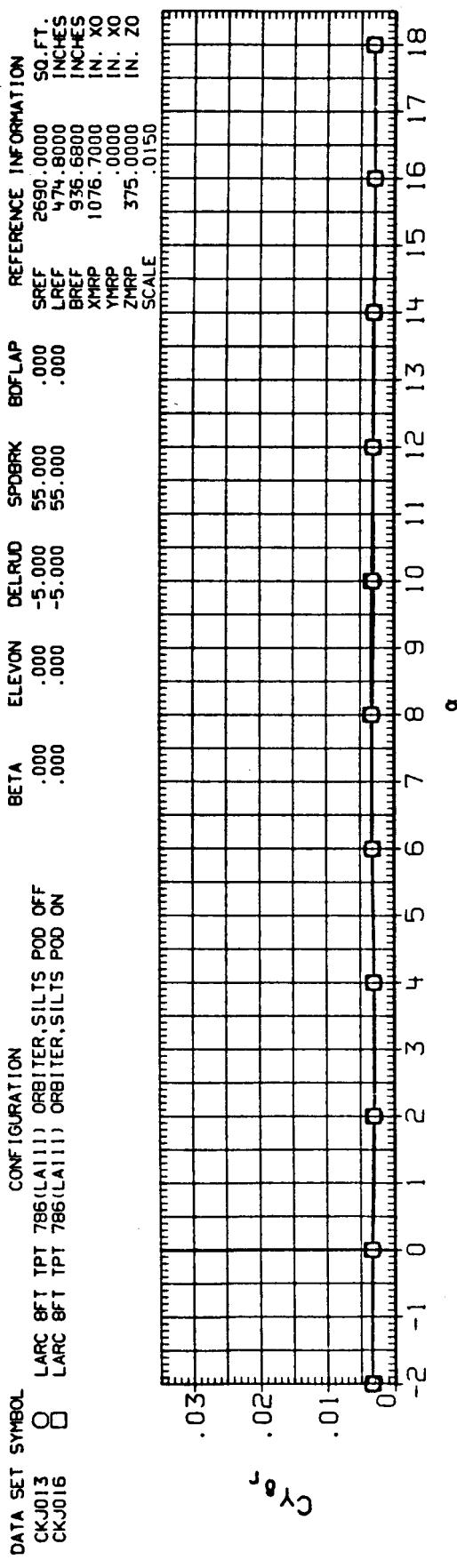


FIGURE 10. EFFECT OF SILTS POD ON THE RUDDER EFFECTIVENESS OF THE 0.015 SCALE
ORBITER, SPEEDBRAKE AT 55 DEGREES

(C) MACH = .98

PAGE 27

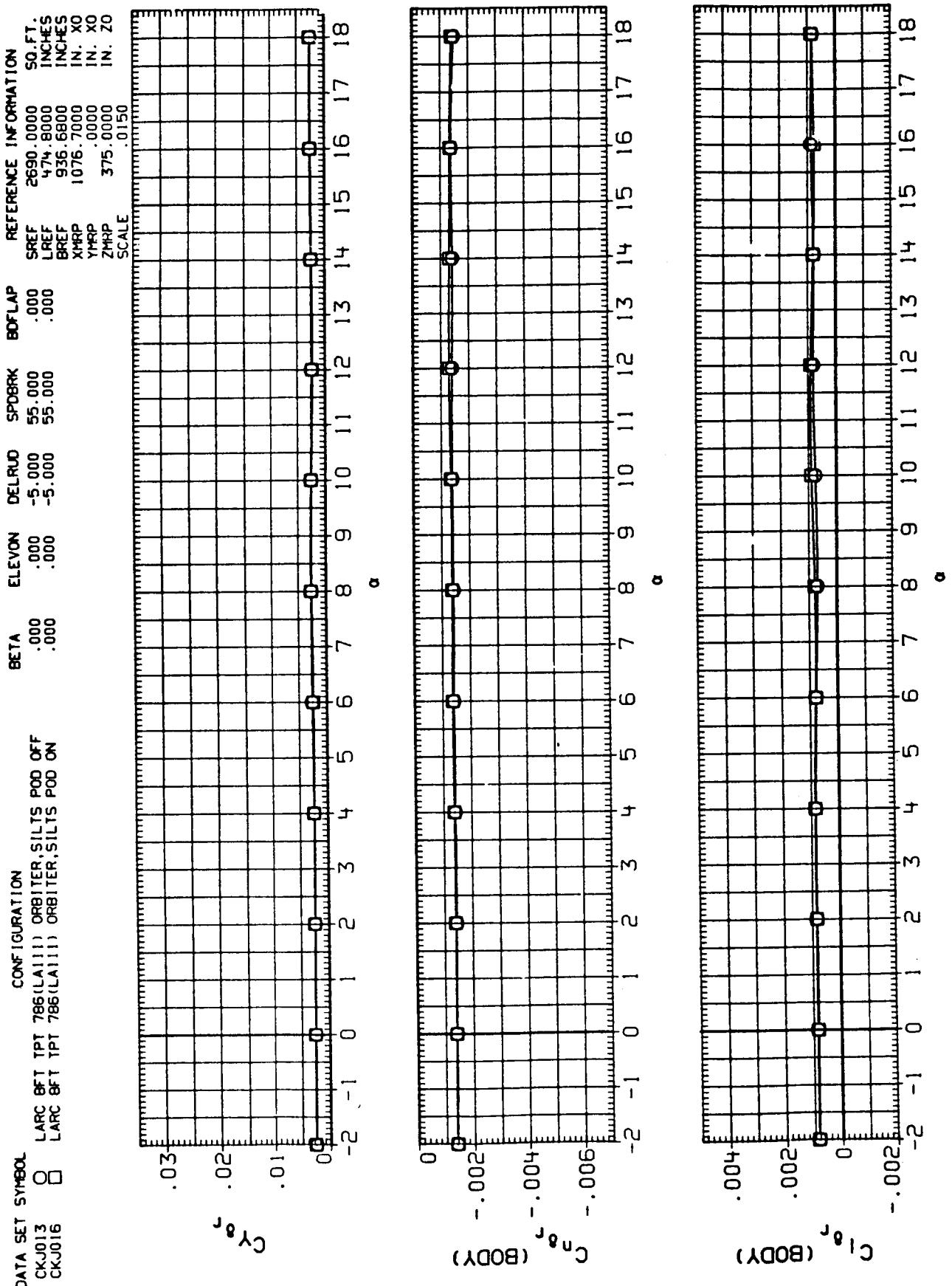


FIGURE 10. EFFECT OF SILTS POD ON THE RUDDER EFFECTIVENESS OF THE 0.015 SCALE
ORBITER, SPEEDBRAKE AT 55 DEGREES

(D) MACH = 1.20

PAGE 84

TABULATED SOURCE DATA

Tabulations of plotted data are available
from DMS upon request.

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 785((LA111)) ORBITER,SILTS POD OFF

PAGE 1

(RKJ001) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.F.T.	XMRP =	1076.7000	N. XO
LREF =	474.8000	INCHES	YMRP =	.0000	N. XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	N. ZO
SCALE =	.0150				

RUN NO. 21/ 0 RNL = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CLM	CBL	CYN	CY	L/D
.800	-2.290	-.01801	-.19374	.06864	-.00191	-.00033	.00320	-.50050
.799	-.081	-.01268	-.08240	.07024	-.00201	-.00035	.00027	-.16975
.800	2.126	.00207	.03273	.06823	-.00187	-.00085	-.00027	-.43477
.799	4.324	-.0074	.14860	.06225	-.00193	-.00109	-.00150	1.95799
.800	6.551	-.01152	.27817	.05570	-.00211	-.00128	-.00023	-.0707
.800	8.746	-.01636	.38301	.05330	-.00215	-.00160	-.00237	1.1138
.800	10.949	-.01785	.48949	.05258	-.00041	-.00133	-.00292	3.35273
.800	13.135	-.01793	.59673	.05641	-.0009	-.00220	-.0017	3.25452
.800	15.369	-.01643	.74060	.05795	-.00116	-.00055	-.00256	1.9053
.800	17.592	-.01485	.86854	.06161	-.00359	-.00058	-.00167	2.9868
GRADIENT	.00302	.05180	-.00096	-.00180	-.00000	-.00013	-.00076	2.77107

RUN NO. 18/ 0 RNL = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CLM	CBL	CYN	CY	L/D
.900	-2.318	-.00058	-.19854	.08313	-.00161	-.00088	.00397	-.14188
.901	-.075	.01182	-.06679	.08463	-.00156	-.00060	-.00016	-.78702
.900	2.172	.01360	.06375	.08453	-.00072	-.00069	-.00299	.69638
.901	4.416	.01252	.17549	.08383	-.00138	-.00106	-.00198	1.73558
.901	6.608	.00975	.28023	.08236	-.00231	-.00107	-.00152	2.35745
.900	8.842	.00194	.40065	.08001	-.00281	-.00177	-.00178	1.4065
.900	11.027	-.00099	.51131	.08067	-.01096	-.00163	-.00261	2.74855
.900	13.240	-.00194	.61618	.08230	-.00085	-.00118	-.00270	2.62595
.900	15.473	.00029	.74700	.08263	-.01121	-.00033	-.00205	2.50018
.900	17.693	.00424	.86093	.08271	-.01677	-.00129	-.00102	2.33537
GRADIENT	.00183	.05581	.0009	-.00329	-.00005	-.00003	-.00092	.58425

RUN NO. 15/ 0 RNL = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CLM	CBL	CYN	CY	L/D
.951	-2.358	-.00475	-.22528	.10725	-.00232	-.00064	.00267	-.89549
.952	-.081	-.00457	-.07640	.10724	-.05212	-.00071	-.00064	-.1642
.952	2.196	-.00020	.06802	.10655	-.03210	-.00239	-.00139	-.0735
.952	4.481	.00219	.21046	.10411	-.01316	-.00213	-.00123	-.71030
.952	6.710	-.00249	.34625	.09937	-.00081	-.00275	-.00222	.06388
.950	8.918	-.00480	.45394	.09662	-.00388	-.00140	-.00175	1.0918
.950	11.211	-.00074	.58988	.09642	-.02095	-.00137	-.00315	1.2016
.950	13.394	.00586	.70635	.09923	-.03255	-.00033	-.00565	1.67881
.950	15.665	.01022	.83463	.09959	-.04085	-.00045	-.00690	.32124
.950	17.887	.01608	.95818	.10011	-.04336	-.00029	-.00760	2.41790
GRADIENT	.00017	.06385	-.00044	-.00862	-.00002	-.00017	-.00060	2.26180

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO
BREF =	935.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO. 12 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
-0.1738	-.22929	.12700	.08082	-.00213	-.00050	.00325	-.22384	.13638	-1.64134
-0.0842	-.07816	.12623	.05899	-.00218	-.00051	-.00010	-.07798	.12633	-.61728
-0.0472	.06504	.12582	.03763	-.00236	-.00097	-.00179	.06012	.12824	.46876
2.219	.00472	.12315	.01583	-.00206	-.00132	-.00081	.19914	.13909	1.43176
4.469	.00578	.12021	.00327	-.00176	-.00148	-.00100	.33076	.16000	2.06728
6.717	.00905	.11862	.01629	-.00214	-.00230	-.00461	.45235	.19140	2.36310
9.980	.01521	.11766	.03003	-.00201	-.00086	.00462	.56883	.23636	2.40665
9.980	.8959	.11997	.60395	-.0112	-.00119	-.00063	.0322	.68517	.29008
9.980	11.224	.73396	.12267	-.04252	-.00037	-.00142	.00078	.79296	.35322
9.980	13.457	.86579	.12292	-.05059	-.00116	-.00159	.00181	.90745	.42457
9.980	15.743	.96422	.12344	-.06161	-.00000	-.00013	.06167	.00043	.45174
9.981	17.996	.00169	.06396	-.00052	-.00948	-.00000			
GRADIENT									

RUN NO. 9 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
-0.1860	-.21008	.14267	.08521	-.00191	-.00075	.00040	-.20408	.15112	-1.35042
-0.0526	-.05406	.14506	.05051	-.00188	-.00071	.00146	-.05394	.14510	-.37172
-0.01012	.09537	.14684	.01884	-.00176	-.00135	.00090	.09056	.15049	.60180
2.236	.00913	.23976	.14703	-.00730	-.00129	-.00155	.00071	.22741	1.37421
4.524	-.01235	.37160	.14457	-.02611	-.00097	-.00165	.00187	.35193	1.87771
6.780	-.01625	.49367	.13859	-.03569	-.00173	-.00217	.00435	.46576	2.17200
9.040	11.312	.62182	.13408	-.04657	-.00066	-.00156	.00392	.58344	.25345
1.120	13.575	.74755	.13474	-.05237	-.00054	-.00072	.00208	.69504	.266814
1.120	15.885	.88837	.13650	-.05914	-.00041	-.00060	.00069	.81709	.218220
1.119	18.141	.010906	.13754	-.07774	-.00028	-.00037	-.00201	.91608	.44489
GRADIENT	.00103	.06557	.00065	-.01352	-.00009	-.00013	-.00051	.06290	.00212

PAGE 2
(RKJ001) (23 AUG 77)

PARAMETRIC DATA

BETA =	.000	ELEVON = .000
RUDDER =	.000	SPDBRK = .000
EDFLAP =	.000	

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 3

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	N.	XO	
LREF =	474.8000	INCHES	YMRP =	.0000	N.	XO	
BREF =	936.6800	INCHES	ZMRP =	375.0000	N.	ZO	
SCALE =	.0150						

RUN NO.	6/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	BETA	CN	CA	CBL	CYN
1.201	ALPHA	.00369	-.17842	.07350	-.00151
			-.15231	-.00133	.00101
1.201		-.01244	-.01207	-.00007	-.17219
			.04034	-.00125	-.03511
1.201		.01241	.01041	-.00046	-.00185
			.15159	-.00125	.15233
1.201		.02059	.02040	-.00046	-.23046
			.23585	-.01401	.15555
1.201		.02040	.02040	-.00058	-.09799
			.5053	-.00127	.22329
1.201		.01587	.01587	-.00055	.16861
			.37112	-.00127	1.32431
1.201		.01587	.01587	-.00055	.35093
			.4894	-.03657	.19174
1.200		.01587	.01587	-.00055	.83028
			.37112	-.00127	L/D
1.200		.01243	.01243	-.00055	-.07908
			.49658	-.04819	
1.200		.01243	.01243	-.00055	
			.14475	-.00153	
1.200		.00730	.00730	-.00055	
			.62342	-.05233	
1.200		.00730	.00730	-.00055	
			.15190	-.05233	
1.200		.13.616	.13.616	-.00055	
			.15945	-.06239	
1.200		.01056	.01056	-.00055	
			.87655	-.06239	
1.200		.01056	.01056	-.00055	
			.14194	-.03103	
1.199		.01043	.01043	-.00055	
			.98557	-.03103	
1.199		.18.167	.18.167	-.00055	
			.14276	-.08253	
1.199		.01156	.01156	-.00055	
			.10973	-.08253	
1.199		.20.364	.20.364	-.00055	
			.1.19173	-.08396	
1.200		.00829	.00829	-.00055	
			.1.3751	-.08396	
1.200		.22.624	.22.624	-.00055	
			.0.0257	-.01291	
			.0.0697	-.0004	

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

REFERENCE DATA

RUN NO.	22/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	BETA	CN	CA	CBL	CYN
.799	ALPHA	2.06263	-.19598	.06844	.04464
			-.08274	.07036	-.00331
.799		2.084	2.06816	.04069	.00411
			2.07131	.03681	-.00415
.800		2.097	.02831	.03681	-.00469
			4.330	.06241	.00379
.800		2.097	2.06527	.03270	-.00573
			.14531	.02477	-.00555
.800		4.330	.27556	.05338	.00355
			.2.05536	.05327	-.04280
.799		6.549	.36415	.02173	-.00601
			.8.757	.04109	.04056
.800		8.757	2.02874	.48732	-.00470
			.0.950	.05236	.02246
.800		10.950	.60147	.05521	.01565
			.13.142	.2.01201	.00462
.800		15.358	.74.318	.05882	.00188
			.1.93982	.05986	.00009
.800		17.639	.1.97855	.87970	-.001052
			.0.0050	-.00091	-.00035

PARAMETRIC DATA

(RKJ001)	(23 AUG 77)
BETA =	.000
RUDDER =	.000
BDFLAP =	.000
ELEVON =	.000
SPDBRK =	.000

PARAMETRIC DATA

(RKJ002)	(23 AUG 77)
BETA =	.000
RUDDER =	.000
BDFLAP =	.000
ELEVON =	.000
SPDBRK =	.000

(RKJ001)	(23 AUG 77)
BETA =	.000
RUDDER =	.000
BDFLAP =	.000
ELEVON =	.000
SPDBRK =	.000

(RKJ002)	(23 AUG 77)
BETA =	.000
RUDDER =	.000
BDFLAP =	.000
ELEVON =	.000
SPDBRK =	.000

DATE 30 NOV 77

LAI111 TABULATED DATA LISTING

LARC 8FT TPT 786(LAI111) ORBITER,SILTS POD OFF

PAGE 4

(RKJ002) (23 AUG 77)

REFERENCE DATA
 SREF = 2690.0000 SO.FT.
 LREF = 474.8000 INCHES
 BRCF = 936.6800 INCHES
 SCALE = .0150

RUN NO.	19/ 0	RN/L =	3.50	GRADIENT INTERVAL = -5.00/ 5.00			CD	L/D
				BETA	RUDDER	SPDBRK		
MACH	ALPHA	CN	CA	CLM	CBL	CYN	CL	-2.27494
.900	-2.345	.2.07052	-.21037	.08238	-.00229	-.04585	-.20683	-.84807
.900	-.087	2.07555	-.07170	.08429	-.00302	-.04755	-.07157	.56754
.900	2.148	2.07747	-.05194	.08402	-.00321	-.04981	.08591	1.65709
.900	4.394	2.07175	.16452	.08280	-.00290	-.05046	.15769	.09516
.900	5.591	2.06203	.26514	.06163	.05143	-.004795	.25433	.11151
.900	8.837	2.0+942	.38397	.07939	.02172	-.00454	.37315	.13835
.900	11.029	2.03265	.50419	.06055	.00963	-.00326	.47947	.2.73170
.901	13.227	2.01440	.61146	.08182	-.00120	-.00545	.04232	.62584
.901	15.491	1.99853	.74127	.03268	-.01188	-.00488	.57652	.2.9320
.901	17.690	1.98279	.86069	.08217	-.01872	-.00492	.69226	.2.7766
.900	GRADIENT	.00025	.05560	.00004	-.00333	-.00017	.79503	.33981
							.05407	.58846
							.00063	
MACH	ALPHA	CN	CA	CLM	CBL	CYN	CL	-1.87589
.951	-2.347	2.06242	-.22320	.10749	-.00511	-.04078	-.21861	-.11654
.951	-.075	2.06574	-.07676	.05037	-.00727	-.04197	-.07662	.10751
.951	2.161	2.06439	.06138	.10638	-.00754	-.04370	.05733	.522781
.952	4.448	2.06115	.20358	.10344	-.00673	-.04299	.20093	1.68300
.952	6.704	2.05777	.33942	.09951	-.00685	-.00413	.1939	2.35080
.952	8.948	2.04722	.45662	.05664	-.00484	-.00453	.04563	.32548
.951	11.187	1.98559	.58980	.09622	-.02166	-.00588	.43603	.16648
.950	13.419	1.99407	.71107	.09728	-.03372	-.00672	.03966	.2.61913
.950	15.646	1.98519	.83055	.09940	-.05297	-.00552	.55992	.20882
.950	17.905	1.94281	.96163	.09923	-.00939	-.00175	.03212	.2.68133
.950	GRADIENT	-.00027	.06350	-.00058	-.00880	-.00019	.77298	.2.57058
							.03066	.31971
							.02633	.39010
							.88454	.2.26745
							.00043	.52678
MACH	ALPHA	CN	CA	CLM	CBL	CYN	CL	-1.87589
.980	-2.355	2.06234	-.22440	.12667	-.00502	-.0422	-.03991	-.13578
.981	-.070	2.06016	-.07762	.12603	-.00545	-.0357	-.07747	.12613
.980	2.179	2.05631	.05547	.12448	-.03608	-.0314	-.03963	.12688
.980	4.490	2.05898	.21538	.12212	-.01365	-.00660	-.04009	.47835
.980	6.725	2.05381	.35347	.12000	-.00301	-.00651	-.04271	1.48015
.980	8.993	2.04032	.48695	.11871	-.01801	-.00716	-.04182	.20516
.980	11.231	2.01731	.60914	.12022	-.03062	-.00760	-.03780	.13861
.981	13.496	2.00023	.74470	.12189	-.04468	-.00552	-.03815	.16057
.980	15.737	1.98823	.86413	.12301	-.05171	-.00674	-.03754	.19337
.980	18.002	1.96817	.99+98	.12101	-.05867	-.00773	-.03543	.2.42670
.980	GRADIENT	-.00041	.06419	-.00067	-.00956	-.00023	-.00089	.2.37981
							.00013	.2.26322
							.00041	.35276
							.00041	.15073
							.00041	.45518

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

(RKJ002) (23 AUG 77)

PAGE 5

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	N. XO
LREF =	474.8000	INCHES	YMRP =	.0000	N. XO
BREF =	936.6800	INCHES	ZMRP =	.0000	N. ZO
SCALE =	.0150				

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	GRADIENT INTERVAL = -5.00 / 5.00
1.120	-2.347	2.06817	-.21128	.14356	.08365	-.00528	-.03619	-.03619	
1.121	-.056	2.07225	-.05789	.14549	.05095	-.00641	.00268	-.03702	
1.121	2.225	2.07511	.09074	.14699	.01893	-.0056	.00156	-.03711	
1.120	4.507	2.05759	.23978	.14714	-.00774	-.00576	.00080	-.03493	
1.119	6.785	2.0575	.37218	.14479	-.02569	-.00479	.00054	-.03403	
1.119	9.072	2.03897	.49751	.13917	-.03699	-.00659	.00021	-.03047	
1.120	11.315	2.02565	.62513	.13433	-.04706	-.00622	.00023	-.03094	
1.120	13.608	2.01809	.75008	.13522	-.05404	-.00482	.00235	-.03862	
1.121	15.881	1.98167	.89167	.13815	-.07051	-.00164	.00102	-.03980	
1.119	18.164	1.95813	1.00404	.13728	-.07569	-.00313	-.00078	-.03911	
	GRADIENT	.00005	.06575	.00054	-.01340	-.00005	-.00032	-.00016	

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	GRADIENT INTERVAL = -5.00 / 5.00
1.200	-2.317	2.06481	-.18116	.15155	.07364	-.00491	.00343	-.03880	
1.201	-.036	2.07263	-.04002	.15235	.04072	-.00510	.00277	-.03976	
1.201	2.240	2.07235	.10092	.15197	.01083	-.00482	.00171	-.03896	
1.201	4.509	2.06244	.23454	.15089	-.01369	-.00478	.00104	-.03675	
1.201	6.796	2.05093	.36561	.14925	-.03593	-.00554	.00063	-.03474	
1.200	9.043	2.03610	.49208	.14536	-.04693	-.00576	.00017	-.03252	
1.199	11.363	2.01716	.62553	.14064	-.05738	-.00613	.00042	-.03119	
1.201	13.614	2.00825	.75245	.14054	-.06923	-.00494	.00085	-.03669	
1.200	15.900	1.99497	.87945	.14215	-.08112	-.00401	-.00075	-.03681	
1.200	18.175	1.98579	.99789	.14185	-.08816	-.00372	-.00253	-.03659	
1.200	20.408	1.96213	1.10176	.13934	-.08874	-.00449	-.00514	-.03298	
1.200	22.635	1.92237	1.19576	.13724	-.08481	-.00536	-.00933	-.02420	
	GRADIENT	-.00032	.06100	-.01283	.00003	-.00036	-.00031	-.00148	

BETA	RUDDER	BOFLAP	ELEVON	SPDBRK	PARAMETRIC DATA
	2.000	.000	2.000	.000	
					L/D
					.34932
					-.39679
					.56489
					1.37423
					1.87729
					2.17437
					2.30607
					.25438
					2.6444
					.30790
					.37695
					2.17564
					2.05487
					.39980

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 6
(23 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
LREF = 474.8000 INCHES
BREF = 936.6800 INCHES
SCALE = .0150

PARAMETRIC DATA							
				ALPHA = 11.000	ELEVON = .000	RUDDER = .000	SPDBRK = 25.000
MACH	BETA	ALPHA	CN	CLM	CBL	CYN	CD
.800	-6.116	11.02237	.50222	.05155	.01117	.48310	3.29481
.800	-4.067	10.97950	.49668	.05168	.01637	.47774	3.28726
.799	-2.058	10.94943	.48817	.05191	.02136	.46943	3.26687
.800	-1.028	10.95276	.49126	.05232	.02285	.04399	3.26444
.800	-.023	10.95405	.49185	.05255	.02397	.00113	3.26012
.800	.999	10.94665	.48441	.05270	.02350	-.00263	3.24037
.800	2.036	10.94892	.48549	.05254	.02255	-.00476	3.24786
.799	4.064	10.97376	.49237	.05205	.01814	-.00913	3.26923
.800	6.093	11.01506	.49807	.05030	.01474	-.01285	3.31608
GRADIENT		-.00081	-.00064	.00007	.00023	-.00193	-.00064
						-.00213	-.00056
						-.02095	-.00013
MACH	BETA	ALPHA	CN	CLM	CBL	CYN	CD
.900	-6.134	11.09425	.50350	.08020	.01006	.01549	4.7876
.901	-4.088	11.06572	.50676	.08088	.01048	.09530	1.7560
.901	-2.044	11.04160	.50394	.08050	.01241	.00529	2.72636
.900	-1.023	11.03445	.50327	.08047	.01208	.00246	2.72758
.900	-.020	11.03286	.50404	.08040	.01171	-.00075	2.73012
.900	1.018	11.04076	.50718	.08053	.01128	-.00343	2.72991
.900	2.042	11.05361	.51157	.08017	.01047	-.00548	2.73328
.901	4.081	11.07446	.51228	.07992	.00876	-.01046	2.75341
.900	6.121	11.10586	.51069	.07918	.00836	-.01464	2.75627
GRADIENT		.00153	.00096	-.00010	-.00027	-.00254	-.00240
						-.00227	-.00096
						-.00258	.00010
MACH	BETA	ALPHA	CN	CLM	CBL	CYN	CD
.951	-6.102	11.24993	.58217	.09746	-.01498	.01909	5.5197
.950	-.097	11.20197	.57845	.09703	-.01748	-.01404	.54858
.950	-2.041	11.17725	.57835	.09609	-.01941	-.00293	.54876
.950	-1.030	11.18204	.58399	.09598	-.02018	-.00068	.55429
.950	-.017	11.17783	.58321	.09637	-.02068	-.00138	.55346
.950	1.010	11.17945	.58327	.09641	-.02078	-.00347	.55351
.950	2.047	11.18444	.58375	.09634	-.02191	-.00593	.55398
.950	4.064	11.21848	.58922	.09568	-.02084	-.01222	.55935
.950	6.099	11.25675	.58787	.09615	-.01678	-.01535	.55779
GRADIENT		.00181	.00124	-.00010	-.00044	-.00258	-.00275
						-.00276	.00123

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 7

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
 LREF = 474.8000 INCHES YMRP = .0000 IN. YO
 BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
 SCALE = .0150

RUN NO. 14 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CD	L/D
.981	-6.120	11.30796	.60799	.11998	-.02448	.01522	-.01920	.12737	.57266	2.41768
.980	-4.066	11.26784	.59981	.11998	-.02894	.00890	-.01277	.08276	.57461	2.42639
.980	-2.037	11.25205	.61262	.12225	-.02905	.00403	-.00752	.04270	.57719	2.41017
.981	-1.046	11.24354	.61145	.12246	-.02345	.00073	-.00364	.02491	.57584	2.40605
.980	-0.010	11.24323	.61132	.12158	-.03053	-.00200	-.00687	.00488	.57779	2.3882
.980	1.012	11.24622	.61145	.12155	-.03087	-.00458	-.00235	-.01749	.57944	2.42269
.981	2.042	11.25570	.61583	.12109	-.03092	-.00709	-.00488	-.03801	.58035	2.42859
.980	4.068	11.27814	.61460	.11975	-.02675	-.01233	-.01054	-.08086	.57931	2.3763
.980	6.091	11.31712	.61298	.11884	-.02478	-.01739	-.01624	-.12333	.57774	2.43952
GRADIENT										
		.00126	.00067	-.00010	-.00010	-.00273	-.00290	-.02007	.00005	.000234

RUN NO. 11 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CD	L/D
1.121	-6.136	11.38989	.62858	.13714	-.04285	.01308	-.01081	.11376	.58912	2.27836
1.121	-4.086	11.33857	.62350	.13474	-.04475	.00888	-.00594	.07448	.58484	2.29621
1.121	-2.083	11.31456	.62454	.13561	-.04712	.00435	-.00373	.03846	.58580	2.29266
1.121	-1.025	11.30142	.62133	.13538	-.04751	.00197	-.00256	.02030	.58275	2.28967
1.121	-0.015	11.30144	.62144	.13426	-.04689	-.00064	-.00143	.00265	.58308	2.30070
1.121	1.012	11.30135	.62050	.13435	-.04660	-.00303	-.00018	-.01527	.58214	2.25336
1.121	2.035	11.30939	.62322	.13466	-.04736	-.00638	-.00005	-.03070	.58383	2.29771
1.121	4.065	11.34740	.62936	.13480	-.04698	-.01087	-.00265	-.06660	.59053	2.30684
1.120	6.098	11.38465	.62806	.13711	-.04432	-.01547	-.00589	-.10558	.58864	2.27816
GRADIENT										
		.00058	.00042	-.00006	-.00019	-.00246	-.00112	-.01722	.00042	.000141

RUN NO. 8 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CD	L/D
1.199	-6.109	11.42653	.63183	.14427	-.05943	.01160	-.00457	.10108	.59072	2.21588
1.200	-4.070	11.38318	.62787	.14181	-.05832	.00890	-.00353	.06799	.58753	2.23449
1.200	-2.040	11.35673	.62588	.14085	-.05856	.00376	-.00229	.03501	.58589	2.24191
1.200	-1.030	11.34843	.62500	.14071	-.05894	.00092	-.00228	.01995	.58509	2.24219
1.200	-0.016	11.34858	.62533	.14021	-.05855	-.00156	-.00172	.00332	.58551	2.26052
1.200	1.009	11.34679	.62348	.14054	-.05791	-.00391	-.00064	-.01528	.58364	2.24745
1.200	2.049	11.35517	.62428	.14074	-.06735	-.00609	-.00038	-.03301	.58435	2.26046
1.200	4.055	11.37744	.62450	.14147	-.05725	-.01024	-.00174	-.06679	.58433	2.23127
1.200	6.110	11.42147	.62976	.14287	-.05975	-.01454	-.00248	-.09922	.58900	2.22475
GRADIENT										
		-.00043	-.00004	-.00028	-.00018	-.00066	-.00012	-.01663	-.00041	-.00013

(RKJ003) (23 AUG 77)

PARAMETRIC DATA

LARC 8FT TPT 786(LA111) ORBITER SILTS POD ON

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO
BREF =	935.6900	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO. 39 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.800	-2.287	-.01679	-1.19196	.06837	.04618	.00220	-.00034	.00392	-.18908	.07598	-2.48858
.801	-.098	-.01021	-.03080	.07013	.04227	-.00218	-.00045	.00098	-.08068	.07026	-1.14818
.799	2.115	.00911	.03219	.06813	.03889	-.00189	-.00075	-.00270	.02965	.06927	.42805
.799	4.336	.00435	1.19336	.06232	.03453	-.00219	-.00105	-.00135	.14421	.07350	1.96213
.799	6.553	.00253	.27957	.05571	.02533	-.00207	-.00119	-.00110	.27089	.08719	3.10677
.800	8.741	-.00894	.38688	.05340	.02240	-.00212	-.00155	.00231	.37625	.11188	3.36296
.800	10.955	-.01055	.49242	.05271	.02350	-.00029	-.00123	.00233	.47343	.14533	3.25760
.800	13.129	-.01269	.59651	.05738	.01547	-.00090	-.00221	.00479	.56993	.1985	2.97073
.799	15.361	-.01324	.74211	.05770	.01119	-.00061	-.00253	.00505	.70032	.25222	2.77656
.800	17.575	-.00633	.85958	.06145	.00816	-.00058	-.00181	.0075	.80128	.3826	2.51770
	GRADIENT	.00374	.05149	-.00091	-.00174	-.00011	-.00088	-.00088	.05028	-.00038	.67611

RUN NO. 36 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.900	-2.324	-.01169	-1.19608	.08254	.05183	-.00196	-.00075	.00464	-.19257	.09043	-2.12964
.900	-.066	.00402	-.06207	.03405	.03920	-.00155	-.00051	.00103	-.06197	.08412	-.73674
.901	2.172	.01220	.06822	.08429	.03001	-.00125	-.00070	-.00201	.06558	.08684	.75517
.899	4.410	.00908	.18328	.03300	.03030	-.00130	-.00093	-.00218	.17635	.09685	1.82091
.900	6.617	.00707	.28559	.06167	.03166	-.00090	-.00147	-.00148	.27428	.1404	2.40516
.900	8.832	-.00985	.40597	.07966	.02159	-.00217	-.00174	.00298	.38893	.14105	2.75738
.901	11.027	-.00849	.51169	.08104	.01000	-.00030	-.00230	.00355	.48674	.17742	2.74350
.900	13.232	-.00968	.62878	.08246	-.00141	-.00013	-.00252	.00449	.59321	.22420	2.64592
.900	15.495	-.00665	.78550	.08227	-.00107	-.00012	-.00314	-.00531	.70895	.28192	2.51474
.900	17.709	-.00096	.87427	.08195	-.01639	-.00659	-.00134	-.00107	.80791	.34400	2.34856
	GRADIENT	.00314	.05555	.00007	-.00329	.00010	-.00003	-.000105	.05501	.00098	.59467

RUN NO. 33 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.950	-2.347	-.01797	-2.1996	.10722	.07106	-.00219	-.00066	.00454	-.21539	.11614	-1.85462
.951	-.082	-.00188	-.07696	.10737	.05219	-.00223	-.00063	.00050	-.07681	.10748	-.71464
.951	2.166	.00339	.06327	.10631	.03203	-.00242	-.00114	-.00094	.05921	.10862	.54509
.951	4.434	.00642	.20733	.10350	.01308	-.00206	-.00163	-.00033	.19871	.11922	1.66683
.950	6.688	-.00627	.33946	.09914	.00100	-.00295	-.00269	.00395	.32560	.13900	2.35935
.949	8.921	-.00320	.45709	.09624	-.00514	-.00093	-.00157	.00042	.43664	.16596	2.63105
.950	11.179	-.00286	.58915	.09655	-.02055	-.00137	-.00333	.00252	.55925	.20894	2.67655
.949	13.384	.00306	.70207	.09934	-.03133	-.00036	-.00519	.00192	.66001	.25916	2.54670
.950	15.639	.00931	.83290	.10028	-.04122	-.00069	-.00692	.00143	.77503	.32110	2.4371
.949	17.878	.01686	.95493	.10040	-.04977	-.00054	-.00773	-.00149	.87800	.38970	2.25983
	GRADIENT	.00347	.06295	-.00054	-.00859	.0001	-.00015	-.00071	.06101	.00046	.523338

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER, SILTS POD ON

PAGE 9
(RKJ004) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	N.	XO
LREF =	474.8000	INCHES	YMRP =	.0000	N.	XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	N.	ZO
SCALE =	.0150					

RUN NO.	30/ 0	RN/L =	3.50	GRADIENT INTERVAL = -5.00/ 5.00			BETA =	RUDER =	BDFLAP =	PARAMETRIC DATA		
				CAL	CBL	CYN				CL	ELEVON =	SPDBRK =
MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CL	CD	L/D		
.980	-2.351	-.00087	-.22428	.12771	.08095	-.00231	-.00033	.00302	.13680	-.159987		
.980	-.072	.01379	-.07578	.12645	.05956	-.00200	-.00052	.00004	.12654	-.59757		
.979	2.185	.02404	.06795	.12531	.03804	-.00232	-.00084	-.00209	.12781	.49397		
.979	4.449	.01847	.21019	.12301	.01621	-.00217	-.00119	-.00138	.13895	1.43946		
.979	6.743	.00970	.35500	.11975	-.00329	-.00181	-.00135	-.00016	.16061	2.10750		
.980	8.965	.002814	.48027	.11827	-.01528	-.00200	-.00193	-.00082	.00468	.45598	1.9167	2.37899
.979	11.201	-.00194	.60283	.12121	.02935	-.00196	-.00193	-.00080	.00468	.56780	.23600	2.40597
.980	13.472	-.00205	.73582	.12559	-.04188	-.00106	-.00106	-.00000	.00368	.68678	.29161	2.35514
.979	15.700	-.01079	.86078	.12195	-.05010	-.00030	-.00030	-.00188	-.00035	.79557	.35033	2.27120
.980	17.978	.00488	.99062	.12321	-.06092	-.00125	-.00125	-.00181	-.00251	.90423	.42294	2.13794
GRADIENT	.00302	.06387	-.00067	-.00952	.00000	-.00000	-.00000	-.00013	-.00068	.06159	.00034	.45061
MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CL	CD	L/D		
1.120	-2.346	-.02073	-.20872	.14338	.08569	-.00198	-.00079	.00474	.15180	-.133510		
1.121	-.042	-.01039	-.05105	.14568	.05044	-.00191	-.00079	-.00187	.14572	-.31958		
1.121	2.261	-.00406	.09856	.14744	.01885	-.00175	-.00126	-.00083	.15121	.61283		
1.120	4.543	-.01054	.24350	.14751	-.00747	-.00133	-.00158	-.00072	.16633	1.38911		
1.121	6.785	-.01270	.37412	.14523	-.02661	-.00066	-.00168	-.00185	.1841	1.88072		
1.121	9.037	-.01314	.49209	.13899	-.03528	-.00160	-.00225	-.00461	.46415	.21456		
1.120	11.316	-.01353	.61909	.13436	-.04627	-.00082	-.00176	-.00421	.58069	.25323		
1.120	12.434	-.00931	.67766	.13465	-.04866	-.00069	-.00052	-.00113	.63277	.27740		
1.119	15.850	-.00488	.88592	.13618	-.06816	-.00024	-.00065	-.00109	.81505	.37297		
1.119	18.131	-.00501	1.00382	.13811	-.07693	-.00011	-.00042	-.00137	.91100	.44363		
GRADIENT	.00161	.06558	.00062	.01354	.00009	-.00009	-.00012	-.00064	.06290	.00213	.39774	
MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CL	CD	L/D		
1.200	-2.325	-.01059	-.18541	.15268	.07425	-.00161	-.00009	.00195	.17906	-.111861		
1.200	-.0422	-.00322	-.04502	.15260	.04062	-.00157	-.00004	-.00138	.15264	-.29408		
1.200	2.217	-.00329	.09155	.15172	-.01108	-.00151	-.00047	-.00324	.15515	.55181		
1.201	4.477	-.00349	.22233	.15057	-.01386	-.00133	-.00054	-.00323	.20990	.16746		
1.200	6.785	-.00005	.35446	.14899	-.03638	-.00126	-.00059	-.00205	.33438	.18983		
1.201	9.001	-.00072	.47794	.14549	-.04905	-.00147	-.00070	-.00074	.44929	.21848		
1.200	11.306	-.00612	.60210	.14052	-.05775	-.00173	-.00147	-.00179	.56286	.25583		
1.200	13.538	-.00414	.7228	.13974	-.06783	-.00100	-.00045	-.00039	.66948	.30491		
1.200	15.832	-.00303	.84928	.14144	-.07999	-.00085	-.00059	-.00026	.77848	.36777		
1.200	18.075	-.00620	.96495	.14255	-.08857	-.00102	-.00084	-.00067	.87311	.43491		
GRADIENT	.00216	.00216	.00032	-.01296	.00004	-.00008	-.00077	.00723	.00108	.35121		

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 765(LA111) ORBITER,SILTS POD ON

(RKJ005) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. X0
LREF =	474.8000	INCHES	YMRP =	.00000	IN. X0
BREF =	935.6800	INCHES	ZMRP =	375.0000	IN. Z0
SCALE =	.0150				

RUN NO.	40/ 0	RN/L =	3.50	GRADIENT INTERVAL = -5.00 / 5.00			CL	CD	L/D
				CN	CLM	CBL	CYN	CY	
MACH ALPHA	2.06540	BETA	.06827	.04456	.00452	.04066	-.19579	.07617	-2.57055
.800 -2.294	- .07126		.07030	.04054	-.00411	.04245	-.08617	.07047	-1.22285
.800 -.111	- .06920		.06828	.03679	-.00373	.04326	.02234	.06915	.32311
.800 .2.090	- .02485		.05225	.03284	-.00557	.03449	-.04286	.07282	1.89121
.800 .4.315	- .06359		.14230	.05563	-.00551	.03264	-.04299	.08530	.305652
.800 .6.543	- .05663		.27190	.05329	-.02155	.05059	-.04051	.26378	.333266
.800 .8.720	- .04230		.38002	.05234	-.02210	.00257	-.00275	.46951	.11029
.800 1.0.921	- .02851		.46227	.05234	-.01582	.00156	-.0015	.56174	.26272
.800 1.3.111	- .01279		.58999	.05676	-.00278	.0015	-.0015	.69520	.2.97038
.800 1.5.358	- .00005		.73712	.05837	-.01046	.00424	-.00045	.81178	.2.75891
.800 1.7.592	- .98054		.87072	.06027	-.00177	-.00029	-.00016	.05035	.2.53194
.799 GRADIENT	- .00034		.05155	-.00092			-.00034		.67791
MACH ALPHA	2.07851	BETA	.08246	.04997	-.00260	.00672	-.19828	.09064	-2.18765
.900 -.2.340	- .07181		.08390	.03781	-.00321	.00649	-.06851	.08400	.81557
.900 -.081	- .06263		.08373	.02844	-.00349	.00657	-.05208	.05809	.67556
.900 2.166	- .01060		.08254	.02803	-.00331	.00606	-.05082	.0562	.73550
.900 4.390	- .05925		.08150	.03083	-.00450	.00488	-.06604	.16569	.1.1234
.901 6.604	- .03078		.27179	.07939	-.02010	.00518	-.04532	.26826	.2.36826
.900 8.825	- .07712		.40017	.07968	-.01095	.00563	-.02449	.13983	.2.74080
.900 11.029	- .06005		.50683	.08117	-.00206	.00473	-.0067	.38225	.2.75817
.900 13.254	- .04308		.62565	.08122	-.01167	.00513	-.0288	.48419	.17555
.900 15.476	- .02593		.74918	.08165	-.01704	.00556	-.0350	.59037	.2.65403
.900 17.701	- .01102		.87070	.08002	-.00335	-.0011	-.00008	.80465	.2.2244
.900 GRADIENT	- .00297		.05588	-.0002			-.00072	.05435	.50892
MACH ALPHA	2.06225	BETA	.07089	.04815	-.00485	.04123	-.222004	.11701	-1.88050
.951 -.2.369	- .05012		.05061	-.00700	.00466	-.04146	-.07694	.10786	.71337
.951 -.095	- .06445		.06515	.03017	-.00724	.00423	-.04286	.10829	.56422
.951 2.168	- .02050		.06590	.01168	-.00638	.00396	-.04584	.19768	.66238
.951 4.442	- .05900		.20630	.09935	.00288	-.00582	-.00520	.32005	.1.3759
.950 6.694	- .05431		.33390	.09692	-.00513	.00448	-.04640	.43865	.2.62592
.950 8.932	- .04432		.45926	.09551	-.00597	.00180	-.03983	.56088	.1.6704
.950 11.199	- .02580		.55087	.09642	-.03287	-.00215	-.03221	.67134	.2.67816
.950 13.425	- .02971		.71369	.10009	-.04291	.00151	-.02740	.78242	.2.56799
.950 15.672	- .96433		.84071	.09955	-.04993	-.00989	-.02801	.8843	.2.41887
.950 17.922	- .94129		.96607	.09925	-.00068	-.00014	-.00025	.39239	.2.26418
.950 GRADIENT	- .00046		.06324	-.00017			-.00014	.06130	.52458

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 11

(RKJ005) (23 AUG 77)

REFERENCE DATA

SREF =	2690.000	SQ.FT.	XMAP =	1076.7000	IN. XO	BETA =	2.000	ELEVON =	.000
LREF =	474.8000	INCHES	YMAP =	.0000	IN. XO	RUDDER =	.000	SPDBRK =	25.000
BREF =	936.6800	INCHES	ZMAP =	375.0000	IN. ZO	BDFLAP =	.000		
SCALE =	.0150								

PARAMETRIC DATA

RUN NO.	31 / 0	RNL =	3.49	GRADIENT INTERVAL =	-5.00 / 5.00	CY	CL	L/D	
MACH ALPHA		CN	CA	CLM	CBL	CYN	CD	CD	
.980 -2.365	2.07958	-224.66	12698	.07951	-.00516	.00448	-.04077	-.211933	-1.61143
.980 -.091	2.07712	-.07871	12625	.05789	-.00661	.00378	-.03975	-.07851	-.62124
.980 2.169	2.07953	.06500	12436	.03648	-.00713	.00332	-.04107	.05575	.44054
.980 4.449	2.07443	.2094	12224	.01432	-.00690	.00310	-.04063	.19983	1.44637
.980 6.717	2.06525	.34918	12050	-.00243	-.00691	.00481	-.04225	.33269	2.07264
.980 8.974	2.04891	.48246	11961	-.01756	-.00730	.00571	-.04234	.45790	2.36757
.979 11.218	2.03022	.60351	11935	-.03054	-.00738	.00489	-.03764	.56876	2.42565
.980 13.469	2.01208	.73675	11234	-.04399	-.00767	.00574	-.03881	.68822	2.37640
.979 15.737	1.95841	.85038	12235	-.05117	-.00707	.00277	-.03755	.79495	2.36404
.980 17.959	1.97344	.97855	12163	-.00758	-.00311	-.00664	-.03579	.89338	2.14020
GRADIENT	-.00058	.06356	-.00070	-.00956	-.00025	-.00020	-.00004	.06129	.45084
RUN NO.	28 / 0	RNL =	3.49	GRADIENT INTERVAL =	-5.00 / 5.00	CY	CL	L/D	
MACH ALPHA		CN	CA	CLM	CBL	CYN	CD	CD	
1.119 -2.354	2.08008	-21007	14353	.08380	-.00523	.00306	-.03633	-.20400	.15204
1.120 -.060	2.08617	-.05479	14572	.05047	-.00671	.00296	-.03769	-.05464	.14578
1.120 2.222	2.08526	.09421	14714	.01856	-.00642	.00176	-.03733	.08844	.38689
1.119 4.507	2.07937	.23518	14732	-.00706	-.00599	.00099	-.03500	.22288	1.34792
1.120 6.772	2.06794	.37023	14529	-.02552	-.00510	.00069	-.03354	.35051	1.8792
1.119 9.034	2.05385	.49328	13982	-.03652	-.00679	.00029	-.03131	.46580	2.1564
1.119 11.331	2.03588	.62322	13469	-.04694	-.00641	.00023	-.03108	.58461	.24541
1.119 13.593	2.03136	.75241	13556	-.05355	-.00506	.000287	-.04012	.69947	.26658
1.119 15.874	2.01688	.88684	13737	-.06684	-.00170	.00130	-.04079	.81717	.37520
1.119 18.142	1.97334	1.00714	13756	-.07560	-.00343	-.00075	-.03846	.91424	.4432
GRADIENT	-.00013	.06494	.00056	-.01332	-.00007	-.00032	-.00019	.06227	.39497
RUN NO.	25 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00	CY	CL	L/D	
MACH ALPHA		CN	CA	CLM	CBL	CYN	CD	CD	
1.201 -2.321	2.08088	-.18249	15212	.07326	-.00485	.00339	-.03911	-.17618	.15938
1.201 -.021	2.08819	-.04175	15273	.04023	-.00499	.00277	-.03989	-.04169	.15275
1.200 2.219	2.09334	.0961	15221	.01120	-.00497	.00190	-.03954	.08565	.55030
1.200 4.494	2.08110	.22824	15113	-.01377	-.00503	.00121	-.03803	.21569	.27968
1.200 6.760	2.06941	.35851	14947	-.03567	-.00569	.00068	-.03533	.33843	1.9063
1.200 9.014	2.05290	.47960	14553	-.04703	-.00693	.00029	-.03293	.45085	.21904
1.200 11.291	2.03477	.60535	14116	-.05725	-.00641	.00031	-.03355	.56599	.20275
1.200 13.592	2.02354	.73393	14086	-.05917	-.00487	.00102	-.03789	.68027	.30939
1.200 15.848	2.01043	.86099	14227	-.08044	-.00421	-.00075	-.03738	.78941	.37198
1.200 18.118	2.00438	.97750	14200	-.08785	-.00380	-.00244	-.03741	.88487	.43894
GRADIENT	.00026	-.00015	.06020	-.01279	-.00002	-.00033	-.00016	.00134	.35171

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER SILTS POD ON

PAGE 12

(RKJ006) (23 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
 LREF = 474.8000 INCHES YMRP = .0000 IN. YO
 BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
 SCALE = .0150

PARAMETRIC DATA										
		ALPHA	=	11.000	ELEVON	=	.000	SPDBRK	=	25.000
MACH	BETA	ALPHA	CN	CLM	CBL	CYN	CY	CL	CD	L/D
.800	-6.069	10.99673	.50059	.01307	.01107	-.01416	.12961	.48159	.14596	3.29952
.800	-4.074	10.95220	.49224	.01685	.00711	-.00961	.09587	.47321	.14552	3.25199
.800	-2.042	10.91957	.48259	.02268	.02123	-.00339	.04388	.46384	.14334	3.23584
.800	-1.023	10.92278	.48565	.02265	.00156	-.00317	.02201	.46688	.14372	3.24856
.800	-0.004	10.91855	.48426	.02344	-.00026	-.00123	.00288	.46558	.14314	3.25268
.800	.010	10.92529	.48769	.02156	.02274	-.00229	-.00084	.46897	.14364	3.26484
.799	.010	10.92337	.48908	.05267	.02165	-.00421	.00264	.47022	.14448	3.25462
.801	.024	10.94317	.46539	.05240	.01815	-.00594	.00695	.46760	.14378	3.25206
.690	.062	10.98712	.49374	.05110	.01454	-.01347	.01145	.47495	.14426	3.29225
.800	.055	GRADIENT	-.00020	-.00007	.00014	-.00195	.00200	-.02066	-.00018	.000127
MACH	BETA	ALPHA	CN	CLM	CBL	CYN	CY	CL	CD	L/D
.900	-6.114	11.08796	.51149	.08046	.00599	.01295	-.01537	.13859	.48646	1.7732
.900	-4.091	11.06745	.51267	.08105	.01074	.00942	-.01178	.48758	.17795	2.73991
.901	-2.053	11.04214	.51060	.08106	.01041	.00506	-.00682	.48563	.17735	2.73820
.901	-1.023	11.03005	.50728	.08105	.01059	.00228	-.00439	.48240	.17662	2.73133
.900	-0.005	11.02841	.50754	.08085	.01043	-.00010	-.00240	.48270	.17644	2.73572
.900	.012	11.03584	.51035	.08046	.01032	-.00302	-.00020	.48551	.17667	2.74815
.900	.048	11.04091	.51068	.08002	.00935	-.00555	.00250	.48590	.17634	2.75543
.901	.090	11.07296	.51679	.08042	.00895	-.01017	.00701	.49172	.17818	2.75975
.901	.116	11.10451	.51586	.07962	.00737	-.01445	.01136	.49087	.17748	2.76573
.901	.0059	GRADIENT	.00046	-.00012	-.00028	-.00244	.00229	-.02230	-.00047	.000304
MACH	BETA	ALPHA	CN	CLM	CBL	CYN	CY	CL	CD	L/D
.950	-6.093	11.26986	.59241	.09827	-.01499	.01376	-.01802	.12725	.56178	2.64808
.951	-4.072	11.22618	.59033	-.0174	.00921	-.01287	.08581	.55985	.21159	2.64588
.950	-2.030	11.21488	.59680	.09681	-.01912	.00332	-.00742	.04441	.56637	.21102
.950	-1.012	11.21519	.60024	.02677	-.02040	.00063	-.00509	.02320	.56995	.21166
.951	-0.019	11.21223	.60009	.03684	-.02102	.00135	-.00337	.00305	.56981	.21168
.950	.024	11.20581	.59657	.09634	-.02148	-.00359	-.00099	-.01933	.56638	.21093
.950	.023	11.20743	.59310	.09666	-.02156	-.00591	.00196	-.03927	.56486	.21046
.950	.061	11.22439	.59241	.09588	-.02106	-.01173	.00954	-.08112	.56222	.21034
.950	.105	11.25221	.58581	.05590	-.01778	-.01633	.01514	-.12454	.55564	.20935
.950	.0074	GRADIENT	-.00003	-.00016	-.00048	-.00248	.00264	-.02057	-.00016	.000236

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 13

(RKJ006) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO	ALPHA =	11.000	ELEVON =	.000
LREF =	474.8000	INCHES	YMRP =	.0000	IN. YO	RUDDER =	.000	SPDBRK =	25.000
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO	BDFLAP =	.000		
SCALE =	.0150								

RUN NO. 32 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	BETA	ALPHA	CN	CLM	CBL	CYN	CY	CL	CD	L/D
.980	-6.101	1.1.29287	.611160	.12035	-.02500	.01541	-.01868	.57619	.23778	2.42319
.980	-4.047	1.1.25257	.611290	.12033	-.02924	.01009	-.01278	.57764	.23762	2.43096
.980	-2.026	1.1.22787	.611204	.12105	-.02973	.00458	-.00667	.57675	.23790	2.42434
.980	-1.034	1.1.22422	.60905	.12154	-.02987	.00120	-.00312	.57276	.23758	2.41087
.980	-0.016	1.1.21037	.60715	.12119	-.03001	-.00194	-.00082	.00435	.57200	.23692
.980	1.014	1.1.21679	.60519	.12141	-.03054	-.00473	-.00201	.01694	.57001	.23581
.980	2.031	1.1.22192	.60493	.12021	-.03092	-.00729	-.00498	.03734	.56997	.23564
.980	4.046	1.1.26119	.61239	.11963	-.02915	-.01235	-.01028	.07950	.57724	.23646
.980	6.079	1.1.31327	.61840	.11957	-.02714	-.01782	-.01209	.58293	.23856	2.44352
	GRADIENT	.00035		-.00045	-.00004	-.00281	-.00263	-.00042	-.00019	.00017

RUN NO. 29 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	BETA	ALPHA	CN	CLM	CBL	CYN	CY	CL	CD	L/D
1.120	-6.105	1.1.37546	.62276	.13714	-.04236	.01320	-.01081	.58348	.25728	2.26788
1.121	-4.076	1.1.31434	.61280	.13536	-.04439	.00862	-.00686	.57433	.25295	2.27053
1.121	-2.052	1.1.28555	.61157	.13612	-.04682	.00420	-.00377	.57310	.25317	2.26370
1.121	-1.002	1.1.26508	.60500	.13574	-.04599	.00173	-.00251	.01979	.56683	.25549
1.121	-0.020	1.1.27364	.60205	.13460	-.04648	-.00071	-.00168	.00394	.57099	.25107
1.121	1.028	1.1.27629	.60222	.13469	-.04648	-.00331	-.00029	.01539	.57113	.25121
1.121	2.040	1.1.28927	.61323	.13504	-.04705	-.00642	-.00015	.03107	.57493	.25248
1.121	4.068	1.1.33025	.62157	.13556	-.04662	-.01109	-.00261	.06688	.58263	.28524
1.121	6.102	1.1.37975	.62605	.13728	-.04462	-.01571	-.00673	.10502	.58665	.27292
	GRADIENT	.00191		.00099	-.00006	-.00246	-.00112	-.01723	.00098	.00016

RUN NO. 26 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	BETA	ALPHA	CN	CLM	CBL	CYN	CY	CL	CD	L/D
1.201	-6.138	1.1.39566	.62261	.14478	-.05948	.01209	-.00431	.10125	.58173	2.19569
1.201	-4.086	1.1.35285	.61913	.14251	-.05963	.00829	-.00315	.06776	.57897	.26160
1.201	-2.060	1.1.32235	.61489	.14118	-.05813	.00350	-.00261	.03612	.57520	.25915
1.200	-1.031	1.1.32551	.61858	.14083	-.05817	.00086	-.00236	.02010	.57927	.25964
1.200	-0.009	1.1.33007	.62127	.14058	-.05770	-.00146	-.00165	.00368	.58154	.25990
1.200	1.016	1.1.32545	.61824	.14070	-.05738	-.00391	-.00049	.01535	.57857	.25937
1.200	2.016	1.1.33297	.61897	.14107	-.05709	-.00608	-.00042	.03286	.57918	.25995
1.200	4.062	1.1.36500	.62378	.14168	-.05753	-.01047	-.00158	.06644	.58359	.22275
1.200	6.110	1.1.40227	.62568	.14327	-.05954	-.01469	-.00260	.10003	.58500	.21414
	GRADIENT	.00163		.00061	-.00007	-.00231	-.00063	-.01660	.00060	.00007

DATE 30 NOV 77

TABLE I. TABULATED DATA LISTING

卷之三

REFERENCE DATA

REF = 2690.0000 SQ. FT.
REF = 474.8000 INCHES
REF = 936.6800 INCHES
SCALE = .0150

376.7000 IN. X0
0000 IN. X0
375.0000 IN. Z0

卷之三

ELEVON = .000
SPDBRK = .000
55.000

RUN NO.	48/ 0	RN/L =	3.51	GRADIENT INTERVAL =	-5.00/	5.00
MACH					CY	
ALPHA	-2.469				.00459	
	.901				-.00050	
BETA	-.02147	-.22962	.10559	.08142	-.00209	
	.907	-.03748	.10664	.05719	-.00163	
	2.167	.00653	.10672	.05635	-.00133	
	4.407	-.00072	.10557	.05384	-.00152	
	6.609	-.00023	.10376	.05459	-.00140	
	8.851	-.01385	.10086	.04526	-.00210	
	9.00	11.036	.49595	.10104	.03219	
	.900	13.251	-.01574	.10144	-.00444	
			-.01591	.10153	.02197	
			6.1164	.10204	-.00063	
			-.01531	.174557	-.01001	
			15.491	.66076	.00652	
			17.725	.05762	-.00057	
GRADIENT	.00355		.00000	-.00410	.00009	
					-.00003	

MACH	RUN NO.	45/ 0	RN/L *	3.50	GRADIENT	INTERVAL =	-5.00 /	5.00
ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CY
.980	-.03208	-.22777	.14715	.10025	-.00192	-.00046	.00307	.00019
.981	-.01577	-.00384	.14715	.07995	-.00210	-.00061	-.00016	-.00019
.981	2.229	-.01078	.05519	.05792	-.00220	-.00090	-.00136	-.00106
.980	4.485	-.01133	.20828	.14381	.03585	-.00201	-.00129	-.00116
.980	6.777	-.02639	.35256	.14134	.01619	-.00204	-.00145	-.00118
.980	9.011	-.03089	.47975	.13890	.00164	-.00194	-.00163	-.00147
.979	11.253	-.03235	.60543	.13906	-.01220	-.00159	-.00005	-.00297
.980	13.472	-.03100	.72780	.14144	-.00220	-.00073	-.00037	-.00235
.980	15.737	-.02295	.85499	.13808	-.03258	-.00038	-.00108	-.00062
.980	17.966	-.02625	.97518	.13715	-.04055	-.00099	-.00161	-.00236
GRADIENT	.00296	.06408	-.00049	-.00049	-.00002	-.00012	-.00001	-.00061

- 14 -

(RKJ007) (23 AUG 77)

ELEVON = .000
SPDBRK = .000
55.000

L/D	CD	CCL	CD	CCL
-1.8741	.09544	.17886	.09105	.08435
- .9264		.01486	.08949	.11875
- .1661		.22673	.09106	.33585
- 1.3049		.35985	.09711	.44670
- 2.3348		.35985	.10897	.56128
- 2.3348		.35985	.10897	.68182
- 3.0820		.35985	.10897	.79322
- 3.4529		.44670	.17000	.84623
- 3.3016		.56128	.22658	.90069
- 3.0092		.68182	.29391	.95881
- 2.6988		.79322	.00000	.95881

	L/D	CD	CCL
	-1.94888	.11538	.22486
	-.81777	.10678	.08732
	.40327	.10845	.04373
	1.32355	.11791	.15606
	1.91162	.13416	.25642
	2.32905	.16016	.37302
	2.40806	.19411	.46743
	2.39347	.23903	.57209
	2.32389	.29746	.69123
	2.19937	.35874	.78899
	.48265	.00038	.05569

L/D	CD	CO	CL
-1.41796	.15628	.22160	
-.56814	.14725	.08366	
.40050	.14846	.09946	
.23010	.15966	.19639	
.83236	.18196	.33341	
.12909	.21233	.45207	
.22627	.25453	.56665	
.19735	.30711	.67482	
.15325	.36479	.78549	
.05286	.43126	.88532	
.39198	.00050	.06144	

14

3 AUG 77 1

55.000

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 15

(RKJ007) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	N.	XO
LREF =	474.8000	INCHES	YMRP =	.0000	N.	XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	N.	ZO
SCALE =	.0150					

RUN NO. 42/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CLM	CBL	CYN	CD	L/D
1.200	-2.292	-.19645	.17625	.10891	-.00155	-.00005	-.18925	-1.02872
	.035	-.00541	.05520	.07428	-.00155	-.00019	-.05510	-.31054
1.200	2.259	.00204	.08716	.17738	-.00134	-.00061	-.0360	.44427
1.200	4.514	.00246	.21720	.17703	-.01553	-.00110	-.00379	1.05498
1.201	6.776	-.00075	.35258	.17559	-.01553	-.00110	-.00070	2.1351
1.201	9.034	-.00739	.47258	.17312	-.00869	-.00161	-.00181	1.5413
1.199	11.311	-.01163	.59533	.16761	-.02118	-.00141	-.00035	1.83702
1.199	13.563	-.00782	.72018	.16287	-.03463	-.00173	-.00146	1.99924
1.199	15.829	-.00865	.83963	.16044	-.04355	-.00100	-.00025	2.03932
1.199	18.094	-.00667	.96079	.15901	-.05617	-.00116	-.00097	1.99372
	GRADIENT	.00247	.00010	.0691	-.05590	-.00115	-.00058	1.92171
					-.01376	-.00007	-.00075	.30850
								.00121

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

(RKJ008) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	N.	XO
LREF =	474.8000	INCHES	YMRP =	.0000	N.	XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	N.	ZO
SCALE =	.0150					

RUN NO. 52/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CLM	CBL	CYN	CD	L/D
.600	-2.220	2.04505	-.18665	.08814	-.00334	.00327	-.03653	-1.92109
	.060	2.05085	-.08299	.08990	-.00404	.00330	-.03954	-.92116
.600	2.103	2.05148	.02236	.08724	-.00420	.00296	-.04118	.21755
.600	4.243	2.04897	1.2442	.08076	-.00469	.00266	-.04132	1.31608
.600	6.398	2.04224	.23637	.07030	-.00533	.00247	-.03998	2.36022
								3.11339
.600	8.568	2.02903	.35024	.05697	-.04557	-.00583	-.03754	.44975
								.12895
.600	10.751	2.01498	.46550	.04279	-.00597	.00225	-.03688	3.48787
.600	12.917	2.00159	.58919	.03940	-.00393	.00604	-.04352	3.32434
.600	15.108	1.98150	.72222	.04240	-.00177	.00392	-.04071	2.99275
.599	18.354	1.94376	.90644	.04520	-.02031	-.01009	-.00304	2.57695
	GRADIENT	.00058	.04819	-.00115	-.00022	-.00010	-.00074	.50343
								-.00087

(RKJ007) (23 AUG 77)

(RKJ008) (23 AUG 77)

BETA	= .000	ELEVON	= .000
RUDDER	= .000	SPDBRK	= .000
BOFLAP	= .000		

BETA	= .000	ELEVON	= .000
RUDDER	= .000	SPDBRK	= .000
BOFLAP	= .000		

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER.SILTS POD ON

PAGE 16
(RKJ008) (23 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
 LREF = 474.8000 INCHES YMRP = .0000 IN. XO
 BRFP = 936.6500 INCHES ZMRP = 375.0000 IN. ZO
 SCALE = .0150

RUN NO.	49/ 0	RN/L =	3.50	GRADIENT INTERVAL = -5.00/ 5.00			CL	CY	CD	L/D
				CLM	CBL	CYN				
MACH	BETA	CN	CA	.07780	-.00199	.00562	-.22031	-.04514	-.11422	-1.92883
.900	-2.346	-2.06231	-224480	.06497	-.00270	.00575	-.08882	-.04742	-.10650	-.83399
.900	-.C83	2.05422	-.08898	.10638	-.00311	.00587	-.05046	-.05332	.0723	.32939
2.150	2.06846	.05932	1.0583	.05516	-.00311	.00587	-.04969	.15058	.11624	1.29542
.900	4.329	2.06155	.15905	.05350	-.00316	.00537	-.04969	.15058	.11624	1.29542
.900	6.626	2.05146	.26610	.10292	-.00473	-.00440	-.04720	.25245	.13294	1.89902
.901	8.838	2.03875	.38122	.04824	-.00469	.00244	-.04466	.36125	.15793	2.28746
.901	11.065	2.02245	.50067	.09895	-.00523	.00257	-.04307	.47218	.19419	2.43159
.900	13.273	2.00555	.61367	.10060	-.02127	-.00484	-.00024	.03689	.57418	2.40437
.900	15.498	1.98826	.74393	.10030	.01164	-.00490	-.00187	.03813	.68992	2.33067
.900	17.736	1.96911	.86054	.10105	.00674	-.00608	-.00309	.03911	.78886	2.20106
GRADIENT	.0009	.05697	-.00013	-.00366	-.00017	-.00003	-.00003	.05506	.00030	.48235
MACH	BETA	CN	CA	.09505	-.00436	.00323	-.03848	-.04019	-.08902	.15668
.980	-2.359	2.06000	-.23526	.14712	-.00621	.00310	-.04019	-.04019	-.14712	-.46163
.981	-.075	2.06466	-.08921	.14700	-.00736	.00310	-.04019	-.04019	-.14712	-.60510
.980	2.189	2.06469	.05156	.14509	.05642	-.00670	.00284	-.04061	.14695	.31291
.980	4.473	2.05800	.20553	.14320	.03416	-.00650	.00301	.04086	.19075	.1.20299
.980	6.719	2.04945	.33E81	.14073	.01637	-.00627	.00400	.04183	.31803	.1.77504
.980	8.982	2.03957	.47234	.13927	.00195	.00630	.00460	-.04077	.44481	.21131
.979	11.244	2.01675	.60102	.13834	-.01057	-.00652	.00475	-.03826	.56252	.25287
.980	13.500	1.99679	.73291	.13932	-.02476	-.00671	.00467	-.03731	.68013	.2.24448
.980	15.743	1.98451	.88272	.13881	-.03232	-.00640	.00155	-.03777	.30657	.2.21852
.979	17.985	1.96475	.97624	.13570	-.03716	-.00749	-.00114	.03618	.88664	.36496
GRADIENT	-.00026	-.00026	.05389	-.00060	-.00947	-.00030	-.00004	-.00003	.00024	.00024
MACH	BETA	CN	CA	.17489	-.10792	-.00454	-.03876	-.03876	-.19562	.18289
1.199	-2.300	2.06306	-.20280	.17550	.07351	-.00475	.00243	-.03969	-.06157	.17553
1.200	-.032	2.06446	-.06167	.07320	.17483	-.00484	.00168	-.04005	.06637	.17754
1.200	2.219	2.0792	.05939	.21333	.17395	-.00479	.00102	-.03802	.19899	.37386
4.509	6.777	2.05939	.205180	.35052	.17205	-.00845	.00073	.03609	.32777	.19019
1.200	9.033	2.03102	.47001	.16742	-.02169	-.00647	.00035	.03354	.43789	.1.54458
1.200	11.317	2.00543	.59567	.16278	-.03363	-.00726	-.00022	.03221	.55214	.27651
1.199	13.593	1.99005	.72653	.16054	-.04517	-.00520	.00127	.03859	.66845	.32680
1.199	15.877	2.00148	.894927	.16019	-.05870	-.00480	-.00011	.03830	.77304	.38642
1.199	18.105	1.98840	.96113	.15707	-.06649	-.00458	-.00173	.03847	.86473	.44797
GRADIENT	.00010	.06100	-.00015	-.01353	-.00004	-.00004	-.000029	-.00008	.00008	.31184

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

REFERENCE DATA

SREF =	2690.0000	SO.FT.	XMRP =	1076.7000	IN. X0
LREF =	474.8000	INCHES	YMRP =	.0000	IN. Y0
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. Z0
SCALE =	.0150				

MACH	BETA	ALPHA	CN	CLM	CBL	CYN	CY	CD	L/D
-6.112	11.36518	.59110	.16604	-.03380	.01246	-.00648	.10485	.54679	.27927
1.200	-4.099	11.31475	.58474	.16421	.03346	.00862	-.00421	.54115	.27574
1.201	-2.034	11.30195	.58999	.16393	.03508	.00394	-.00254	.54644	.27628
1.201	-1.045	11.31732	.59995	.16336	.03581	.00137	-.00202	.55623	.27792
1.199	-0.028	11.30557	.59612	.16274	-.03467	-.00123	-.00092	.00125	.55263
1.199	1.002	11.31548	.59641	.16275	-.03503	-.00461	-.00113	.01425	.5484
1.199	2.022	11.31952	.59673	.16272	-.03557	-.00719	-.00018	.03201	.53118
1.200	4.057	11.38173	.61312	.16209	-.03249	-.01085	-.00300	.07023	.56907
1.200	6.099	11.42238	.61488	.16255	-.03243	-.01501	.00481	.10444	.57051
GRADIENT	.00704		.00293	-.00026	.00017	-.00248	.00081	-.01697	.00289
									.00039

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF =	2690.0000	SO.FT.	XMRP =	1076.7000	IN. X0
LREF =	474.8000	INCHES	YMRP =	.0000	IN. Y0
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. Z0
SCALE =	.0150				

MACH	ALPHA	BETA	CN	CLM	CBL	CYN	CY	CD	L/D
.600	-2.202	-.00014	-.18362	.05006	-.00229	.00000	.00389	-.18009	.09534
.601	-.059	.00452	-.00499	.05795	-.00244	-.00003	.00072	-.08490	-.13871
.601	2.077	.02144	.01559	.08863	.0534	-.00054	-.00204	.01236	.08913
.601	4.246	.02334	.12458	.08219	.05324	-.00229	-.00238	.1816	.29575
.601	6.390	.01368	.23015	.07177	.05019	-.00241	-.00098	.22073	.06694
.600	8.562	.00634	.34780	.05789	.04799	-.00251	-.00111	.35330	.10903
.600	10.732	.00267	.46147	.04388	.04813	-.00222	-.00138	.44522	.45025
.600	12.921	.00375	.58765	.04025	.04038	-.00066	.00167	.56377	.17064
.601	15.100	.00302	.71532	.04130	.03191	-.00041	-.00034	.67986	.22621
.600	17.283	.00312	.84087	.04501	.02345	-.00211	-.00203	.78953	.29280
GRADIENT	.00406		.04773	-.00097	-.00107	.00001	-.00013	.04619	-.00067

PAGE 18
(23 AUG 77)

(RKJ009)

PARAMETRIC DATA

ALPHA =	11.000	ELEVON =	.000
RUDDER =	.000	SPDBRK =	.000
BDFLAP =	.000		55.000

PARAMETRIC DATA

ALPHA =	11.000	ELEVON =	.000
RUDDER =	.000	SPDBRK =	.000
BDFLAP =	.000		55.000

(RKJ010)

PARAMETRIC DATA

ALPHA =	11.000	ELEVON =	.000
RUDDER =	.000	SPDBRK =	.000
BDFLAP =	.000		55.000

(RKJ010)

PARAMETRIC DATA

ALPHA =	11.000	ELEVON =	.000
RUDDER =	.000	SPDBRK =	.000
BDFLAP =	.000		55.000

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 19

(RKJ010) (23 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
 LREF = 474.8000 INCHES YMRP = 0000 IN. XO
 BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
 SCALE = .0150

RUN NO.	60 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00	
	BETA	CN	CLM	CBL	CYN	CY
MACH	ALPHA	.22643	.10543	.08057	-.00073	.00497
.900	-2.343	-.03335	-.02511	-.00151	-.00037	-.00130
.901	-0.71	-.02511	-.01680	-.06683	-.00053	-.00343
.899	2.159	-.00244	-.04358	.10618	.05702	.03955
.900	4.409	-.00511	.16041	.10536	.05435	.03955
.900	6.611	-.00400	.26567	.10374	.05333	.03955
.900	8.853	-.02202	.32912	.10049	.04592	.0273
.899	11.028	-.02458	.43563	.10094	.03248	.0167
.900	13.237	-.02650	.60932	.10154	.02216	-.00127
.901	15.514	-.02309	.74268	.10177	.01067	-.00149
.900	17.741	-.02127	.85934	.10111	.00746	-.00152
	GRADIENT	.00477	.05730	-.00004	-.00394	-.00002

RUN NO.	57 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00	
	BETA	CN	CLM	CBL	CYN	CY
MACH	ALPHA	.23271	.14654	.10107	-.00210	.00363
.979	-2.348	-.02051	-.08097	.07965	-.00219	-.00057
.981	-0.054	-.01200	-.00011	.05036	-.00220	-.00098
.981	2.200	-.00011	.05036	.14651	.05856	-.00125
.980	4.488	-.00738	.20973	.14399	.03578	-.00196
.980	6.749	-.01353	.35363	.14141	.01649	-.00204
.979	9.001	-.01809	.47926	.13936	.00216	-.00223
.979	11.255	-.02020	.60579	.13875	.01163	-.00173
.978	13.475	-.02356	.73061	.13867	.02418	-.00127
.981	15.748	-.01289	.86454	.12896	.03210	-.00044
.979	17.977	-.01480	.98063	.13635	.03983	-.00112
	GRADIENT	.00226	.06452	-.00036	-.00053	-.00002

RUN NO.	54 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00	
	BETA	CN	CLM	CBL	CYN	CY
MACH	ALPHA	.19589	.17615	.10861	-.00166	.00049
1.200	-2.274	-.00861	-.05308	.17731	.07374	-.00141
1.200	-0.21	.01813	.08513	.17680	.04233	-.00122
1.201	2.244	.02206	.22077	.17530	.01527	-.00120
1.201	4.532	.02104	.01176	.35440	.00904	-.00073
1.201	6.800	.00144	.47957	.6750	.02213	-.00078
1.200	9.049	.00026	.60480	.16275	.03532	-.00113
1.200	11.318	.00058	.72456	.15979	.04376	-.00109
1.199	13.603	-.00031	.84707	.15994	.05701	-.00105
1.200	15.877	-.00444	.95630	.15858	.06602	-.00116
1.200	18.113	.00181	.06133	-.00014	.01373	-.00011
	GRADIENT					

BETA	RUDDER	BDFLAP	ELEVON	SPDBRK	L/D
			.000	.000	.000
			.000	.000	.000
			.000	.000	.000

CL	CD	L/D
-.22193	.11460	.93653
-.08408	.10691	.78648
-.00273	.10775	.36704
-.00167	.15184	.29353
-.00229	.25196	.88545
-.00152	.36902	.13363
-.00200	.46806	.15917
-.00033	.56988	.19105
-.00044	.00528	.23837
-.00056	.68840	.29671
-.00092	.00382	.35800
-.00012	.78718	.19880
-.00002	.00537	.48226

CL	CD	L/D
-.22651	.15596	.45239
-.08084	.14721	.54911
-.00193	.14872	.36774
-.00036	.15096	.23665
-.00163	.17882	.18199
-.00223	.3456	.83835
-.00167	.45242	.21175
-.00001	.56804	.25451
-.00297	.67818	.22280
-.00031	.79437	.36838
-.00028	.89067	.43235
-.00026	.89026	.20609
-.00003	.06188	.39468

CL	CD	L/D
-.00232	.15301	.03224
-.00388	.17333	.29896
-.00326	.19219	.4312
-.00132	.21359	.07304
-.00044	.24084	.55176
-.00099	.56110	.85706
-.00079	.66665	.01632
-.00084	.77100	.35571
-.00086	.85960	.44804
-.00056	.91059	.01123

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
 LREF = 474.8000 INCHES YMRP = .0000 IN. XO
 BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
 SCALE = .0150

RUN NO. 64 / 0 RN/L = 3.51 GRADIENT INTERVAL = -5.00 / 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.601	-2.221	2.06367	-1.16656	.08809	.05790	-.00332	.00340	-.03778	-.18311	.09526	-1.92215
.600	-.062	2.06547	-.08415	.08978	.05466	-.00382	.00304	-.03820	-.08405	.08987	-.93529
.601	2.081	2.07098	.02114	.08739	.05089	-.00431	.00290	-.04203	.01796	.08810	.20381
.600	4.243	2.06576	1.2431	.08092	.04836	-.00477	.00272	-.04190	.11799	.08990	1.31247
.601	6.411	2.05551	2.3802	.05992	.04559	-.00559	.00245	-.03947	.22972	.09606	2.38099
.600	8.564	2.04224	3.4737	.05711	.04535	-.00679	.00237	-.03728	.33495	.09831	3.05240
.600	10.744	2.02741	4.6576	.04265	.04529	-.00684	.00224	-.03584	.45063	.12891	3.49555
.600	12.911	2.01468	5.89485	.03322	.03804	-.00412	.00591	-.04290	.56130	.16890	3.32320
.601	15.109	1.99688	7.1944	.02436	.02669	-.00199	.00121	-.04121	.68335	.22841	2.99251
.601	17.260	1.96936	8.2719	.04407	.02758	-.00947	.00071	-.03288	.77686	.28753	2.70189
GRADIENT		.00055	.04821	-.00111	-.00150	-.00022	-.00010	-.00075	.04668	-.00083	.50349

RUN NO. 61 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.900	-2.351	2.06337	-.22734	.10543	.07779	-.00190	.00548	-.04446	-.22282	.11466	-1.94329
.900	-.076	2.06959	-.09025	.10677	.06494	-.00257	.00580	-.04816	-.09011	.10689	-.84308
.900	2.154	2.07059	.03630	.10599	.05554	-.00293	.00559	-.04864	.03229	.10728	.30102
.900	4.382	2.06537	1.56987	.10455	.05389	-.00331	.00537	-.04906	.14743	.1615	1.26928
.901	6.607	2.05627	2.6171	.10306	.05483	-.00422	.00440	-.04707	.24811	.13249	1.87270
.900	8.859	2.04090	3.8416	.10014	.04613	-.00491	.00318	-.04327	.36415	.15811	2.30313
.900	11.046	2.02719	4.9615	.10004	.03402	-.00522	.00243	-.04221	.46779	.19325	2.42066
.900	13.263	2.00983	6.1379	.10071	.02125	-.00484	-.00051	-.03813	.57431	.23884	2.40459
.900	15.515	1.99338	7.4209	.10113	.01116	-.00481	-.00227	-.03784	.68800	.29594	2.32479
.901	17.734	1.97617	8.5908	.10112	.00665	-.00597	-.00326	-.03957	.78746	.35799	2.19971
GRADIENT		.00032	.05691	-.00015	-.00362	-.00020	-.00002	-.00002	.05499	.00021	.48074

RUN NO. 58 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.979	-2.355	2.06007	-.23418	.14608	.09937	-.00423	.00305	-.03738	-.22798	.15558	-1.46538
.980	-.080	2.06638	-.08707	.14665	.07762	-.00630	.00302	-.03949	-.08687	.14678	-.59183
.990	2.200	2.05593	.05693	.14499	.05625	-.00695	.00284	-.03982	.05132	.14707	.34898
.980	4.472	2.05754	.20625	.14343	.03499	-.00653	.00279	-.03990	.19444	.15308	1.22228
.980	6.736	2.04846	.34516	.14067	.01657	-.00622	.00387	-.04074	.32628	.18018	1.81081
.979	8.993	2.03427	.47815	.13866	.00185	-.00621	.00443	-.03998	.45060	.21170	2.12851
.979	11.267	2.01427	.60796	.13843	-.01043	-.00642	-.00467	-.03745	.56919	.25455	2.23606
.979	13.516	1.99567	.73603	.13809	-.02444	-.00674	-.00467	-.03685	.68337	.30629	2.23111
.979	15.736	1.98384	.85465	.13751	-.03189	-.00600	-.00192	-.03744	.78533	.36414	2.15670
.979	18.014	1.96392	.98104	.13549	-.03735	-.00736	-.00136	-.03517	.89105	.43224	2.06150
GRADIENT		-.00035	.06438	-.00042	-.00942	-.00033	-.00004	-.00035	.06175	.00047	.39558

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 21

REFERENCE DATA

SREF	=	2690.0000 SQ.FT.	XMRP	=	1076.7000 IN.	XO	BETA	RUDDER	ELEVON	SPDBRK	CD
LREF	=	474.8000 INCHES	YMRP	=	.0000 IN.	XO					L/D
BREF	=	936.6800 INCHES	ZMRP	=	375.0000 IN.	ZO					
SCALE	=	.0150									
MACH			BETA								
1.200	-2.312	-	2.05126		-20399	.17498	.10832	-.00466	.00277	-.03814	.18306
1.201	-.028		2.05891		-.06025	.17517	.07337	-.00483	.00242	-.06016	.17520
1.202	2.229		2.05253		.07754	.17455	.04258	-.00477	.00163	.03893	.17743
1.203	4.508		2.04984		.21261	.17362	.01625	-.00488	.00109	.03784	.18979
1.204	6.775		2.03157		.34936	.17178	-.00874	-.00548	.00061	.03488	.21186
1.205	9.039		2.01936		.47313	.16725	-.02271	-.00634	.0015	.03293	.23951
1.206	11.346		1.99971		.60335	.16234	-.03374	-.00727	-.00130	.03140	.27796
1.207	13.627		1.99396		.74138	.16040	-.04627	-.00506	.00141	.03756	.33056
1.208	15.920		1.97856		.86391	.15969	-.05917	-.00484	-.00024	.03709	.39053
1.209	18.176		1.96980		.98330	.15643	-.06562	-.00459	-.00174	.03770	.45536
GRADIENT											
			-.00047		.06108	-.00021	-.01351	-.00003	-.00026	.00006	.00099
											.31258

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF	=	2690.0000 SQ.FT.	XMRP	=	1076.7000 IN.	XO	BETA	RUDDER	ELEVON	SPDBRK	CD
LREF	=	474.8000 INCHES	YMRP	=	.0000 IN.	YO					L/D
BREF	=	936.6800 INCHES	ZMRP	=	375.0000 IN.	ZO					
SCALE	=	.0150									
MACH			BETA								
.601	-6.052		1.80243		.47545	.04173	.03758	.01276	-.01359	.12267	.45921
.602	-4.059		10.75574		.46389	.04214	.04217	.00762	-.00936	.08387	.44788
.603	-2.022		10.72938		.45682	.04327	.04496	.00212	-.00460	.04238	.44078
.604	-1.032		10.72936		.45225	.04105	.04787	.00019	-.00290	.02279	.44204
.605	-.007		10.72521		.45674	.04395	.04819	-.00457	-.00138	.04058	.44058
.606	1.005		10.73674		.46330	.04376	.04784	-.00457	-.00040	-.01674	.44704
.607	1.993		10.73418		.46065	.04291	.04502	-.00703	.00217	-.03563	.44459
.608	4.029		10.76273		.46530	.04043	.04423	-.01221	.00648	-.07539	.44956
.609	6.000		10.79321		.46771	.03980	.04030	-.01777	.01130	-.11498	.45199
GRADIENT											
			.00106		.00043	-.00018	-.00024	-.00020	.00189	-.01963	.00046
											.00016

(RKJ011) (23 AUG 77)

PARAMETRIC DATA

BETA	RUDDER	BDFLAP	ELEVON	SPDBRK	CD

(RKJ012) (23 AUG 77)

PARAMETRIC DATA

BETA	RUDDER	BDFLAP	ELEVON	SPDBRK	CD

(RKJ012) (23 AUG 77)

DATE 30 NOV 77

LAI11 TABULATED DATA LISTING

LARC 8FT TPT 786(LAI11) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. YO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CD	L/D
.900	-6.128	11.09752	.49239	.10153	.03513	.01274	-.01582	.13950	.19440	2.38495
	-4.101	11.05937	.49116	.10216	.03506	.00929	-.01216	.09666	.19448	2.37779
	-2.079	11.02554	.48734	.10155	.03218	.00398	-.00630	.04860	.46244	2.37809
	-1.032	11.01355	.48391	.10162	.03196	.00164	-.00396	.02521	.45558	1.9297
	-.033	11.01937	.48737	.10079	.03299	-.00621	-.00209	.0364	.45912	1.9220
	1.005	11.02979	.49130	.10070	.03277	-.00292	-.0024	-.0024	.46296	1.9209
	2.056	11.03648	.49145	.10000	.03411	-.00549	-.00245	-.04353	.46322	1.9223
	4.051	11.07138	.49243	.09333	.03289	-.01038	-.00749	-.0835	.46996	1.9071
	5.000	11.11198	.50155	.09543	.03260	-.01408	.01157	-.13381	.47278	1.9378
	6.124	11.00195	.00104	-.00031	.00000	-.00235	-.00234	-.02259	.00107	2.43466
	GRADIENT									.00660

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CD	L/D
.980	-6.107	11.30182	.59570	.14201	-.00383	.01465	-.01855	.12745	.55632	2.17316
	-4.082	11.26984	.60108	.14011	-.00811	.00933	-.01242	.08362	.56211	2.20542
	-1.998	11.23173	.59654	.13979	-.01142	.00399	-.00603	.03990	.55789	2.20245
	-1.052	11.23330	.59929	.14071	-.01122	.00077	-.00240	.02176	.56040	2.19974
	-.027	11.24367	.60514	.14044	-.01141	-.00166	-.0053	.00393	.56614	2.21374
	.980	11.22067	.59346	.13896	-.01098	-.00425	-.00210	-.01809	.55508	2.20461
	.979	11.212776	.60280	.13913	-.00978	-.00639	-.00458	-.03781	.56409	2.22051
	1.999	11.27043	.60071	.13779	-.00663	-.01152	-.01051	-.08147	.56220	2.22617
	4.055	11.30161	.59748	.13783	-.00534	-.01680	-.01651	-.12468	.55888	2.21556
	6.094	11.00051	.00012	-.00029	.00022	-.00256	.00276	-.02009	.00017	.00291
	GRADIENT									

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CD	L/D
1.201	-6.108	11.43160	.61181	.16559	-.03470	.01305	-.00657	.10577	.28356	1.99903
	-4.078	11.38895	.60845	.16369	-.03418	.00900	-.00448	.07035	.56415	2.01040
	-2.027	11.36895	.61055	.16322	-.03574	.00417	-.00309	.03680	.56639	2.02012
	-1.032	11.36499	.61180	.16338	-.03663	.00154	-.00198	.01877	.56760	2.02183
	-.040	11.37497	.61191	.16273	-.03587	-.00102	-.00104	.00189	.56779	2.02628
	1.202	1.018	11.3734	.61044	.16248	-.03569	-.00439	-.0077	.01561	2.02523
	2.022	2.041	11.38185	.61043	.16248	-.03420	-.00721	-.0030	.56640	2.02608
	4.059	11.39466	.60569	.16149	-.03303	-.01100	-.00315	-.07035	.56185	2.02128
	1.202	6.106	11.44211	.60971	.16189	-.03232	-.01502	-.00508	.56548	2.02228
	GRADIENT	.00134	-.00030	-.00027	.00020	-.00254	-.00087	-.01717	-.00024	.00131

PARAMETRIC DATA									
(RKJ012) (23 AUG 77)									
ALPHA =	11.000	ELEVON =	.000	SPDBRK =	.000	BOFLAP =	.000	L/D	55.000
CD		CL		CY		CBL		CYN	
L/D		CL		CY		CBL		CYN	

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER, SILTS POD OFF

PAGE 23

(RKJ013) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. X0
LREF =	474.8000	INCHES	YMRP =	.0000	IN. X0
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. Z0
SCALE =	.0150				

RUN NO.	78 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00	BETA =	.000	ELEVON =	.000	PARAMETRIC DATA
MACH	ALPHA	CN	CA	CBL	CYN	CL	CD	L/D		
.601	-.220	-.00100	.18889	.06017	-.00681	-.01586	.09566	-.1.93723		
.601	-.064	.00436	-.08782	.09062	.05778	-.00690	.09072	-.96693		
.601	.2096	.00553	.01559	.09803	.05489	-.00659	.01235	.08860	.13943	
.601	.4233	.00621	.11611	.06177	.05273	-.00613	.01722	.0976	.1.21793	
.601	.6385	.00417	.22708	.07098	.04954	-.00636	.01620	.21778	.09579	2.27315
.601	.8459	.00126	.34028	.05729	.04717	-.00624	.01397	.32798	.10724	.035825
.600	10.724	-.00105	.45593	.04315	.04753	-.00505	.00581	.01259	.43994	.12723
.601	12.902	.00065	.58180	.03588	.05973	-.00452	.00635	.01584	.55843	.16781
.600	15.099	-.00013	.70841	.03935	.03178	-.00375	.00375	.01273	.67370	.2252
.600	17.258	.00031	.83702	.04262	.02247	-.00440	.00504	.01120	.78670	.28903
GRADIENT	.000078		.04733	-.00104	-.00117	-.00011	-.00028	-.00018	.04579	-.00087
RUN NO.	75 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00					
MACH	ALPHA	CN	CA	CBL	CYN	CL	CD	L/D		
.800	-.2.293	-.00328	.21382	.09298	.07276	-.00691	.00888	-.01653	.20992	
.800	-.094	.00268	-.10190	.09439	.06728	-.00653	.00853	-.01937	.10174	
.800	.2106	.00518	.00979	.09217	.06372	-.00651	.00762	-.01958	.09456	-.07598
.800	.4310	.00845	.12880	.08580	.05934	-.00654	.00711	-.02019	.12198	.06918
.800	.6535	.00240	.25710	.07852	.05021	-.00648	.00666	-.01736	.24649	.09524
.800	.8736	.00025	.36955	.07578	.04684	-.00642	.00610	-.01434	.35276	.10727
.800	10.925	-.00045	.47025	.07438	.04741	-.00476	.00637	-.01430	.44763	.13088
.801	13.122	-.00146	.58139	.07118	.04150	-.00450	.00559	-.01271	.54866	.2.76041
.800	15.360	-.00115	.72308	.07896	.02605	-.00375	.00552	-.01335	.67634	.20716
.799	17.555	.00284	.83552	.08048	.01791	-.00413	.00550	-.01510	.77338	.26677
GRADIENT	.00171		.05178	-.00108	-.00202	-.00006	-.00028	-.00051	.05015	-.00094
RUN NO.	72 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00					
MACH	ALPHA	BETA	CN	CBL	CYN	CL	CD	L/D		
.902	-.335	-.00885	-.22832	.10692	.08244	-.00694	.00884	-.01578	.22378	
.902	-.077	-.00111	-.08843	.10815	.05817	-.00610	.00855	-.01934	.08828	
.902	.2166	.00520	.04147	.10790	.05754	-.00574	.00800	-.02083	.03736	.10939
.902	.4402	.00579	.16107	.10694	.05478	-.00568	.00732	-.01923	.15239	.11889
.901	.6625	.00481	.26561	.10478	.05623	-.00565	.00665	-.01841	.25274	.13484
.901	.8830	.00118	.38632	.10151	.04643	-.00528	.00618	-.01493	.35616	.15961
.902	11.046	-.00174	.49951	.10157	.03278	-.00420	.00542	-.01243	.47079	.19539
.901	13.253	-.00154	.61157	.10216	.02248	-.00412	.00467	-.01106	.57186	.23964
.901	15.500	.00046	.74406	.10226	.01120	-.00415	.00461	-.01254	.68967	.29739
.901	17.709	.00242	.85639	.10178	.00751	-.00457	.00520	-.01435	.78484	.35716
GRADIENT	.00228		.05781	-.00002	-.00417	-.00018	-.00023	-.00053	.050865	.00041

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	N.	XO
LREF =	474.8000	INCHES	YMRP =	.0000	N.	XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	N.	Z0
SCALE =	.0150					

RUN NO.	RN/L =	3.50	GRADIENT INTERVAL = -5.00 / 5.00			CL	CD	L/D
			CLM	CBL	CYN			
BETA	CN	CA	.10218	-.00695	.00778	-.01364	-.22765	-.15718
MACH	ALPHA		.08053	-.00701	.00745	-.01545	.08667	.14656
.979	-2.329	-.23384	.14780	-.14646	.00745	-.01545	-.08667	-.14656
.980	-.064	-.00339	-.08584	.14646	-.00701	-.01633	.0351	.14810
.979	2.197	-.00511	.05915	.14594	-.00716	-.01633	.06590	.15916
.979	4.476	-.00855	.20429	.14355	-.00670	-.01528	.0526	.120916
.979	6.721	-.00463	.35937	.14150	-.01727	-.00532	.05112	.178270
.979	8.925	-.00314	.47734	.13541	-.02411	-.00529	.0529	.10158
.979	11.266	-.012+3	.60535	.13345	-.01555	-.00539	.06729	.01221
.980	13.484	-.01187	.72224	.14183	-.02183	-.00554	.00755	.01228
.979	15.756	-.00372	.85932	.13777	-.03091	-.00564	.00591	.01422
.979	17.984	-.00463	.98354	.13767	-.03904	-.00566	.00587	.01318
GRADIENT		.00011	.06440	-.00057	-.00368	.00003	-.00023	-.00026
RUN NO.	66/ 0	RN/L =	3.50	GRADIENT INTERVAL = -5.00 / 5.00	CYN	CY	CL	CD
BETA	CN	CA	.10734	-.00575	.00676	-.01249	-.18954	-.18348
MACH	ALPHA		.07361	-.00559	.00681	-.01530	-.05321	.17633
1.200	-2.284	-.00684	-.05325	.17632	-.00540	-.01659	.07991	.17933
1.200	-.012	-.00154	.08700	.17600	-.04175	-.01650	.06590	.19092
1.200	2.288	.00335	.21809	.17428	.01586	.00630	.20369	.155053
1.200	4.517	.00274	.35195	.17184	-.00638	.00622	.21228	.155053
1.200	6.796	.00289	.47942	.16700	-.02293	-.00460	.06003	.24040
1.200	9.058	.00082	.63325	.16194	-.03496	.00593	.01240	.18603
1.200	11.326	-.00254	.72945	.15905	-.04392	-.00495	.0632	.27726
1.200	13.606	-.00301	.84730	.15924	-.05337	.00604	.01267	.36659
1.200	15.849	.00012	.96454	.15735	-.06648	-.00525	.0633	.36459
1.199	18.112	.00202	.06099	-.00021	-.01357	.00005	-.00007	.00628
GRADIENT		.00148						

PAGE 24

(RKJ013) (23 AUG 77)

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
RUDDER =	-5.000	SPDBRK =	55.000
BDFLAP =	.000		

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 25

(RKJ014) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.F.T.	XMRP =	1076.7000	IN.	XO			BETA =	2.000	ELEVON =	.000
LREF =	474.8000	INCHES	YMRP =	.0000	IN.	XO			RUDDER =	-5.000	SPDBRK =	.000
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN.	XO			BDFLAP =	.000		55.000
SCALE =	.0150											

RUN NO. 79/ 0 RN/L = 3.51 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	CN	CA	CLM	CBL	CYN	CY		CD	CL	L/D
MACH	ALPHA										
.601	-2.226	2.07137	-.19974	.08778	-.00792	.01160	-.05483	-.18618	.09509	-.1.95807	
.601	-.059	2.08534	-.08370	.03984	.05458	.01137	-.00830	-.08861	.08993	-.98585	
.600	2.069	0.1306	.08703	.05065	-.00862	.01093	-.05894	-.00990	.08750	.11318	
.601	4.237	2.09217	.12023	.02053	.04816	-.00911	-.0044	-.05880	.08929	.2.27604	
.600	6.396	2.05819	.22834	.07018	.04569	-.00952	.01000	-.05567	.21910	.09518	
.601	8.557	2.04499	.34219	.05638	.04486	-.01059	.00947	-.05278	.33000	.10667	
.601	10.741	2.03160	.45813	.04233	.04439	-.01082	.00929	-.04222	.44222	.12697	
.600	12.890	2.01620	.57730	.03782	.03781	-.00817	.01265	-.05716	.55431	.16565	
.601	15.075	1.99729	.69601	.04081	.02691	-.00583	.01060	-.05527	.66144	.22043	
.600	17.271	1.97471	.83298	.03948	.02128	-.00768	.00902	-.05152	.78370	.28501	
	GRADIENT	.00333	.04795	-.00112	-.00145	-.00018	-.00018	-.00065	.04642	-.00092	.50195

RUN NO. 76/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	CN	CA	CLM	CBL	CYN	CY		CD	CL	L/D
MACH	ALPHA										
.800	-2.301	2.05984	-.21610	.09260	.07085	-.01274	.01274	-.05703	.21221	.10120	
.800	-.081	2.06993	-.09821	.09388	.06534	-.00840	.01251	-.05859	.09808	.09402	
.800	2.117	2.08691	.01159	.09114	.06080	-.00905	.01221	-.06123	.00822	.09151	
.800	4.321	2.08651	.12990	.08487	.05540	-.00979	.01150	-.06147	.12313	.09441	
.800	6.540	2.07516	.25301	.07754	.04866	-.00979	.01128	-.05858	.24253	.10585	
.800	8.740	2.06283	.36269	.07468	.04504	-.01011	.01049	-.05651	.35305	.12983	
.800	10.957	2.04752	.47521	.07271	.04501	-.00809	.01015	-.05591	.45272	.16171	
.800	13.131	2.03154	.59205	.07528	.04146	-.00907	.00863	-.05365	.54973	.20555	
.800	15.380	2.01793	.72779	.07894	.02120	-.00706	.00803	-.05724	.68079	.26914	
.799	17.613	1.99772	.86282	.07841	.01620	-.00842	.00660	-.05710	.79865	.33580	
	GRADIENT	.00440	.05202	-.00117	-.00217	-.00030	-.00018	-.00072	.05041	-.00104	.51377

RUN NO. 73/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	CN	CA	CLM	CBL	CYN	CY		CD	CL	L/D
MACH	ALPHA										
.902	-2.335	2.08623	-.22490	.10730	.07922	-.00676	.01531	-.06546	-.22034	.11637	
.902	-.092	2.10164	-.08917	.10832	.06630	-.00748	.01502	-.06646	-.08900	.10846	
.902	2.179	2.11599	.04350	.10768	.05572	-.00765	.01478	-.06812	.03937	.10926	
.901	4.384	2.11172	.15668	.10524	.05387	-.00759	.01390	-.06724	.14818	.11691	
.901	6.602	2.10068	.26332	.10391	.05527	-.00870	.01262	-.06445	.24963	.13349	
.901	8.855	2.08699	.38630	.10118	.04621	-.00932	.01114	-.06077	.36612	.15944	
.901	11.068	2.07100	.50144	.10081	.03437	-.00342	.01012	-.05849	.47276	.19520	
.901	13.276	2.05281	.61464	.10158	.02173	-.00691	.00731	-.05433	.57489	.24001	
.901	15.488	2.03651	.73550	.10169	.01199	-.00862	.00538	-.05389	.68356	.29494	
.900	17.729	2.02063	.86076	.10131	.00722	-.00958	.00413	-.05641	.78903	.35861	
	GRADIENT	.00406	.05697	-.00030	-.00387	-.00012	-.00020	-.00031	.05503	.00010	.47557

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

(RKJ014) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SO. FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO
BREF =	935.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO.	70 / 0	RN/L =	3.50	GRADIENT INTERVAL = -5.00 / 5.00			CD	CL	CY	CBL	CLM	CN	CA	BETA	L/D	
				C	N	Y										
1	1.200															
2	2.296	-2.07168	-20093	.17578	.10813	-.00903	.01022	-.05172	-.19373	.18368						
3	1.200	-0.028	2.07060	-.05981	.17558	.07329	-.00916	-.05230	-.05572	.17561						
4	2.251	2.07284	.08264	.17461	.04238	-.00891	.00882	-.05258	.07572	.17772	.42608					
5	1.200	2.07031	.21667	.17342	.01626	-.00928	.00827	-.05026	.20234	.18994						
6	2.000	4.518	.205016	.34691	.17151	-.00756	-.00965	-.00784	.32430	.21121						
7	1.200	6.770	2.03198	.47462	.16717	-.02160	-.01131	-.00737	.44236	.23986						
8	1.200	9.065	2.03198	.47462	.16717	-.02160	-.01131	-.00737	.44602	.23986						
9	1.200	11.316	2.01538	.59388	.16213	-.03275	-.01135	-.00701	.4539	.55053						
10	1.201	13.571	2.00927	.71593	.16018	-.04462	-.00907	-.00849	.05192	.65836						
11	1.201	15.873	2.00073	.84598	.15948	-.05720	-.00892	-.00726	.05167	.77010						
12	1.199	18.152	1.98720	.96289	.15671	-.06546	-.00874	-.00568	.05106	.86615						
13		GRADIENT	-.00008	.06123	-.00035	-.00002	-.00029	-.00018	.05808	.00092						

PARAMETRIC DATA

BETA =	2.000	ELEVON =	2.000
RUDDER =	-5.000	SPDBRK =	55.000
EDFLAP =	.000		

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER, SILTS POD OFF

PAGE 27

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. YO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO.	80 / 0	RNL =	3.51	GRADIENT INTERVAL =	-5.00 / 5.00
ALPHA	CN	CA	CLM	CBL	CYN
BETA	CN	CA	CLM	CBL	CYN

MACH	.601	-6.045	1.0.77851	.45937	.04186	.03760	.00689	-.00671	.10712	.44343	.12703	.49086
	.601	-4.044	1.0.74405	.45408	.04191	.04297	.00378	-.00175	.06717	.43831	.12582	.48356
	.600	-2.024	1.0.72115	.45108	.04279	.04567	.00154	.00250	.02766	.43525	.12596	.45558
	.601	-1.018	1.0.71335	.44754	.04303	.04754	-.00381	.00403	.00801	.43174	.12548	.44088
	.601	-0.017	1.0.71024	.44591	.04322	.04778	-.00611	.00574	.01249	.43011	.12533	.43169
	.601	1.019	1.0.71086	.44604	.04365	.04690	-.00864	.00734	.03224	.43016	.12579	.41966
	.600	2.052	1.0.71638	.44884	.04235	.04455	-.01063	.00937	-.05213	.43313	.12507	.46306
	.601	4.027	1.0.73958	.45064	.04223	.04369	-.01593	.01348	-.09068	.43525	.12350	.52416
	.600	6.030	1.0.77826	.45713	.03978	.04112	-.02050	.01769	-.12860	.44163	.12456	.54544
GRADIENT		-0.00071		-.00046	.00001	-.00210	.00184	-.01957	-.00043	-.00025	.00366	

RUN NO.	77 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00
ALPHA	CN	CA	CLM	CBL	CYN
BETA	CN	CA	CLM	CBL	CYN

MACH	.800	-6.088	1.1.01290	.48424	.07381	.04012	.00576	-.00702	.11583	.46122	.16496	.79599
	.800	-4.087	1.0.96957	.47807	.07435	.04235	.00240	-.00247	.07207	.45519	.16396	.77625
	.800	-2.044	1.0.94714	.47469	.07395	.04549	-.00155	.00280	.02785	.45201	.16226	.77725
	.800	-1.026	1.0.93859	.47219	.07400	.04665	-.00308	.00446	.00740	.44957	.16276	.77073
	.800	.023	1.0.93360	.46986	.07411	.04728	-.00482	.00643	-.01484	.44727	.16188	.76296
	.800	1.050	1.0.93981	.47260	.07369	.04644	-.00638	.00819	-.03509	.45003	.16204	.77732
	.800	2.036	1.0.94757	.47490	.07293	.04523	-.00812	.01014	-.05587	.45241	.16180	.79617
	.801	4.042	1.0.97165	.47786	.07311	.04339	-.01296	.01437	-.09682	.45521	.16272	.79751
	.800	6.099	1.1.00420	.47858	.07286	.04118	-.01723	.01845	-.13961	.45588	.16288	.79892
GRADIENT		.00021		-.00001	.00017	.00008	-.00182	.00201	-.02071	.00002	-.00017	.00301

RUN NO.	74 / 0	RNL =	3.51	GRADIENT INTERVAL =	-5.00 / 5.00
ALPHA	CN	CA	CLM	CBL	CYN
BETA	CN	CA	CLM	CBL	CYN

MACH	.900	-6.114	1.1.10948	.50324	.10109	.03500	.00907	-.00895	.12642	.47433	.19616	.41802
	.901	-4.074	1.1.07532	.50395	.10207	.03431	.00529	-.00443	.08046	.47496	.19697	.41128
	.902	-2.042	1.1.04336	.50018	.10189	.03204	.00001	.00152	.03260	.47140	.19581	.40744
	.900	-1.011	1.1.02534	.49351	.10107	.03377	-.00203	.00354	.01010	.46507	.19359	.40241
	.901	.003	1.1.02738	.49477	.10141	.03357	-.00439	.00552	-.01353	.46623	.19417	.40115
	.901	1.049	1.1.03647	.49868	.10124	.03359	-.00666	.00771	-.03598	.47008	.19483	.41275
	.901	2.045	1.1.03248	.49355	.10093	.03431	-.00936	.01016	-.05868	.46511	.19351	.40353
	.901	4.066	1.1.02687	.48019	.10086	.03427	-.01416	.01526	-.10466	.45203	.19085	.36856
	.901	6.137	1.1.06687	.48298	.10136	.03281	-.01812	.01905	-.14951	.45454	.19219	.36506
GRADIENT		-.00478		-.00240	-.00015	.00010	-.00236	-.00265	-.02265	-.00232	-.00065	-.00392

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 28

(RKJ015) (23 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
 LREF = 474.8000 INCHES YMRP = .0000 IN. YO
 BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
 SCALE = .0150

	RUN NO.	71/ 0	RN/L =	3.50	GRADIENT INTERVAL = -5.00/ 5.00	
MACH	ALPHA	CN	CA	CLM	CBL	CYN
.981	-6.082	11.30694	.60048	.14175	-.00098	-.01005
.980	-4.041	11.26665	.60459	.13818	-.00759	.00491
.980	-2.035	11.24215	.60465	.13995	-.01056	-.00039
.980	-1.009	11.23180	.60409	.14079	-.01269	-.00351
.980	-0.002	11.23331	.60470	.14010	-.01055	-.00599
.980	1.019	11.22593	.60537	.14038	-.01058	-.00268
.980	2.066	11.23710	.60167	.14042	-.00929	-.01143
.979	4.089	11.26090	.60215	.13932	-.00318	-.01656
.980	6.088	11.31400	.60957	.12949	-.00719	-.02185
.980	GRADIENT	-0.00071	-.00034	-.00017	-.00002	-.00266

	RUN NO.	68/ 0	RN/L =	3.50	GRADIENT INTERVAL = -5.00/ 5.00	
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	RUN NO.	68/ 0	RN/L =	3.50	GRADIENT INTERVAL = -5.00/ 5.00	
MACH	ALPHA	CN	CA	CLM	CBL	CYN
1.201	-6.095	11.40042	.60601	.16369	-.03359	.00897
1.201	-4.071	11.36125	.60505	.16294	-.03423	.00493
1.201	-2.039	11.31092	.59408	.16295	-.03536	.00030
1.201	-1.028	11.32120	.60135	.16283	-.03659	-.00230
1.201	0.001	11.31283	.59744	.16251	-.03525	-.00523
1.202	1.046	11.31031	.59511	.16251	-.03455	-.00819
1.202	2.057	11.32147	.59611	.1623	-.03290	-.01114
1.202	4.069	11.34387	.59595	.16221	-.03224	-.01515
1.202	6.094	11.40006	.60456	.16401	-.03208	-.01928
1.202	GRADIENT	-.00139	-.0009	-.00011	-.00037	-.00255

PARAMETRIC DATA

	ALPHA = 11.000	RUDDER = -5.000	BOFLAP = .000	ELEVON = .000	SPDBRK = 55.00	L/D
CD	.256103	.25673	.25364	.253130	.23130	2.18531
CL	.25676	.25514	.25578	.25578	.21744	2.210923
CY	.25578	.25522	.25582	.25582	.21700	2.21555
CD	.2559	.25541	.25641	.25641	.20721	2.20721
CL	.2559	.25277	.25497	.25497	.2041	2.2041
CY	.2559	.25481	.256324	.256324	.22494	2.22494
CD	.25639	.25639	.257046	.257046	.00010	-.00228
CL	.25639	.25026	.00036	.00036		
CY	.25639	.25026	.00010	.00010		

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

PAGE 29

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN.	XO	BETA =	.000
LREF =	474.8000	INCHES	YMRP =	.0000	IN.	XO	RUDDER =	-5.000
BREF =	936.6800	INCHES	ZMRP =	.0000	IN.	XO	BDFLAP =	.000
SCALE =	.0150						SPDBRK =	55.000

RUN NO. 93/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.500	-2.211	-.00053	-.18319	.08875	.06011	-.00699	.00821	-.01474	-.17963	.09575	-1.87603
.600	-.053	.00224	-.08050	.09043	.05724	-.00664	.00787	-.01617	-.08041	.09050	-.88851
.600	2.110	.00776	.02464	.08824	.05513	-.00628	.00728	-.01785	.02137	.08909	.23988
.600	4.247	.00865	.12564	.08194	.05282	-.00615	.00663	-.01833	.11923	.09102	1.30995
.600	6.398	.00409	.23653	.07091	.04381	-.00631	.00630	-.01475	.22715	.09683	2.34598
.600	8.582	.00309	.34872	.05742	.04772	-.00649	.00600	-.01437	.33625	.10881	3.09008
.600	10.753	-.00116	.46348	.04289	.04733	-.00610	.00554	-.01080	.44734	.12861	3.47840
.600	12.521	.00100	.59037	.03870	.03945	-.00429	.00818	-.01573	.56677	.16972	3.33939
.599	15.087	-.00001	.71593	.03895	.03201	-.00387	.00581	-.01196	.68112	.22396	3.04123
.599	17.264	-.00029	.84391	.04302	.02217	-.00420	.00478	-.01043	.79312	.29153	2.72052
	GRADIENT	.00139	.04790	-.00105	-.00111	-.00013	-.00025	-.00058	.04636	-.00073	.49618

RUN NO. 90/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.799	-2.277	.00810	-.21031	.09298	.07259	-.00701	.00886	-.01617	-.20645	.10126	-2.03883
.799	-.081	.01482	-.10458	.09438	.06789	-.00682	.00842	-.01931	-.10041	.09452	-1.06236
.800	2.105	.01524	.09203	.09203	.06359	-.00656	.00774	-.01923	.01119	.09256	.12085
.800	4.311	.01962	.12941	.08588	.05926	-.00654	.00703	-.01966	.12259	.09537	1.28548
.799	6.561	.01040	.26114	.07807	.04996	-.00647	.00659	-.01678	.25061	.10741	2.33339
.800	8.741	.00913	.37155	.07563	.04656	-.00650	.00619	-.01556	.35574	.13121	2.71112
.800	10.932	.00648	.47496	.07393	.04695	-.00466	.00626	-.01419	.45232	.16267	2.78084
.799	13.117	.00483	.58018	.07655	.04147	-.00451	.00548	-.01229	.54767	.20622	2.65581
.800	15.384	.00648	.72499	.07919	.02596	-.00402	.00525	-.01295	.67800	.26868	2.52334
.799	17.588	.00998	.84902	.08077	.01734	-.00357	.00528	-.01452	.78492	.33355	2.35325
	GRADIENT	.00159	.05168	-.00108	-.00202	-.00008	-.00028	-.00047	.05006	-.00089	.50826

RUN NO. 87/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
.900	-2.329	-.22532	.10668	.08178	-.00675	.00899	-.01692	-.022080	-.08802	.10761	-1.90756
.900	-.066	.01772	-.08815	.10751	.06838	-.00603	.00882	-.02014	-.03856	.10893	.353398
.901	2.168	.02381	.04265	.10739	.05736	-.00566	.00809	-.02179	.15221	.11824	1.28732
.900	4.410	.02075	.16085	.10618	.05473	-.00561	.00732	-.01978	.24744	.13359	1.85231
.899	6.603	.01412	.26116	.10424	.05658	-.00576	.00546	-.01786	.35752	.15803	2.26241
.900	8.823	.01257	.37753	.10132	.04799	-.00469	.00631	-.01589	.46481	.19345	2.40268
.900	11.022	.00997	.49322	.10102	.03412	-.00401	.00542	-.01343	.56826	.23814	2.38623
.899	13.233	.00969	.60769	.10174	.02258	-.00435	.00489	-.01266	.68657	.29648	2.35576
.900	15.492	.00715	.74082	.10232	.01151	-.00416	.00422	-.01049	.78109	.3557	2.19673
.900	17.710	.01467	.85224	.10111	.00849	-.00451	.00519	-.01479	.78109	.47912	.00039
	GRADIENT	.00144	.05743	-.00007	-.00411	-.00017	-.00026	-.00046	.05006	-.00048	.

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO.	84 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00
BETA	CN	CA	CLM	CBL	CYN
MACH	-2.328	-.22835	.14816	-.00716	.00779
	.980	.02198	.14722	-.00737	.00756
	.981	-.07779	.07963	-.00737	-.00756
	.980	2.217	.05819	-.00719	-.00719
	.980	4.503	.03513	-.00670	-.00641
	.980	6.759	.01619	-.00665	-.00641
	.980	8.990	.00200	-.00517	-.00601
	.979	11.266	.13972	-.01214	-.00630
	.979	13.508	.13963	-.02331	-.00800
	.979	15.737	.14035	-.00519	-.00519
	.980	17.988	.14058	-.03144	.00618
	.980	17.988	.13876	-.03952	-.00575
GRADIENT	.00099	.06447	-.00060	-.00971	-.00075
RUN NO.	81 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00
BETA	CN	CA	CLM	CBL	CYN
MACH	ALPHA	-19453	.17650	-.00582	.00686
1.200	-2.268	-.05370	.17741	-.00563	.00679
1.200	-.022	.01209	.17717	-.00549	.00633
1.200	2.244	.01547	.04247	-.00527	.00622
1.200	4.525	.22155	.01572	-.00538	.00605
1.200	6.777	.01185	.00867	-.00559	.00599
1.200	9.019	.01249	.02046	-.00559	.00538
1.199	11.321	.00606	.16257	-.00567	.00502
1.199	13.602	.00896	.16018	-.04369	.00632
1.199	15.864	.01078	.85495	-.05616	-.00496
1.199	18.120	.01302	.97206	-.06591	-.00546
GRADIENT	.00165	.06124	-.00014	-.01371	-.00008

PARAMETRIC DATA

	BETA	RUDDER	BDFLAP	ELEVON	SPDBRK	L/D
	=	=	=	=	=	
	.000	-5.000	.000	.000	.000	
	CL	CY	CD	CL	CY	L/D
	-.222214	-.01346	.15732	-.141202	-.07773	
	-.01673	.14726	.14848	-.52781	.05819	.39194
	-.01664	.16028	.16028	1.25430	.01637	
	-.00641	.13165	.13165	1.81440	.01476	
	-.00609	.45163	.21291	2.12125	.01308	
	-.00601	.25643	.25643	2.23276	.01260	
	-.00601	.68731	.68731	2.22105	.01235	
	-.00575	.30945	.30945	2.14982	.01507	
	-.00575	.36700	.36700	2.04961	.01309	
	-.00588	.43611	.43611	.39223	.00038	
	-.00021	.00044	.00044			
	CL	CY	CD	CL	CY	L/D
	-.01226	.18406	.18406	-.01810	.17743	
	-.01512	.17743	.17743	-.30228	.07788	
	-.01644	.18036	.18036	.43178	.02070	
	-.01641	.19249	.19249	1.07547	.01453	
	-.01453	.21352	.21352	1.54556	.33001	
	-.01433	.23833	.23833	1.81837	.43338	
	-.01433	.55698	.55698	2.00758	.00758	
	-.01025	.27739	.27739			
	-.01325	.32610	.32610			
	-.01336	.38830	.38830			
	-.01409	.45343	.45343			
	-.00613	.49284	.49284			
	.05806	.30974	.30974			
	-.00061					

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 31

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO	BETA =	2.000	ELEVON =	.000
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO	RUDDER =	-5.000	SPDBRK =	55.000
BREF =	936.6800	INCHES	ZMRP =	.0000	IN. ZO	BDFLAP =	.000		
SCALE =	.0150								

PARAMETRIC DATA									
MACH	ALPHA	BETA	CN	CLM	CBL	CYN	CY	CL	L/D
.599	-2.205	2.05919	.18288	.09810	.05776	-.00774	-.05456	-.17936	-.1.88665
.600	-.060	2.08495	-.08312	.0955	.05434	-.00839	.01133	-.05721	-.08303
.600	2.093	2.05501	.02228	.0714	.05089	-.00355	.01094	-.05980	-.01909
.600	4.233	2.09197	.12506	.08056	.04772	-.00901	.01033	-.05922	.01877
.600	6.407	2.06176	.23631	.05688	.04529	-.00950	.00916	-.05646	1.22594
.600	8.560	2.06851	.34565	.05685	.04463	-.01046	.00938	-.05393	2.36955
.600	10.732	2.05332	.46141	.04248	.04444	-.01062	.00913	-.05231	.04454
.600	12.917	2.03889	.58346	.03814	.03786	-.00308	.01251	-.05786	.56505
.599	15.085	2.02003	.71269	.04038	.02741	-.00591	.01037	-.05543	.67762
.599	17.295	1.99733	.84515	.03935	.02117	-.00778	.00691	-.05269	.22448
	GRADIENT	.00570	.04794	-.00117	-.00156	-.00019	-.00018	-.00077	.28883
									.2.75327
									.50222
MACH	ALPHA	BETA	CN	CLM	CBL	CYN	CY	CL	L/D
.800	-2.309	2.10269	-.21468	.09262	.07074	-.00776	.01278	-.21078	-.2.08287
.800	-.096	2.10861	-.10104	.09383	.06541	-.00856	.01271	-.06075	-.1.07318
.800	2.100	2.11019	.01266	.09125	.06062	-.00893	.01194	-.06089	.09400
.800	4.318	2.10370	.12793	.08518	.05357	-.00970	.01136	-.06056	.00951
.800	6.568	2.09207	.26298	.07733	.04823	-.00969	.01112	-.05832	.1.2120
.800	8.760	2.07841	.36880	.07480	.04472	-.01002	.00922	-.05606	.25241
.799	10.964	2.08488	.47864	.07291	.04495	-.00802	.00988	-.05527	.1.0691
.800	13.138	2.04634	.58557	.07568	.04088	-.00890	.00835	-.05272	.3.26104
.800	15.404	2.03639	.72865	.07859	.02141	-.00697	.00767	-.05734	.1.3009
.800	17.630	2.01566	.66135	.08000	.01474	-.00944	.00685	-.05781	.1.3009
	GRADIENT	.00021	.05172	-.00113	-.00213	-.00023	-.00023	-.00030	.1.3009
									.33712
									.51040
MACH	ALPHA	BETA	CN	CLM	CBL	CYN	CY	CL	L/D
.901	-2.345	2.10979	-.22498	.10687	.07301	-.00659	.01500	-.06483	-.1.1598
.900	-.074	2.11167	-.03531	.10765	.06620	-.00707	.01450	-.06528	-.08517
.900	2.154	2.11232	.04056	.10692	.05626	-.00756	.01427	-.06761	.03651
.900	4.393	2.10861	.15592	.10484	.05408	-.00736	.01350	-.06665	.1.14743
.900	6.607	2.09819	.26151	.10305	.05535	-.00853	.01223	-.06367	.1.3245
.900	8.825	2.08539	.37657	.10127	.04373	-.00903	.01115	-.06164	.35657
.899	11.042	2.07051	.49362	.10053	.03511	-.00920	.01009	-.05957	.46522
.899	13.244	2.05029	.59933	.10176	.02161	-.00875	.00712	-.05405	.56007
.901	15.485	2.03308	.73679	.10219	.01106	-.00866	.00513	-.05316	.68276
.899	17.734	2.01727	.86000	.10149	.00700	-.01028	-.00464	-.05680	.29519
	GRADIENT	-.00013	.05653	-.00030	-.00378	-.00012	-.00012	-.00035	.35861
									.47351

(RKJ017) (23 AUG 77)

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

PAGE 32

LARC BFT TPT 786(LA111) ORBITER,SILTS POD ON

(RKJ017) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.F.T.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO.	85/ 0	RN/L =	3.50	GRADIENT INTERVAL = -5.00/ 5.00			CD	L/D	
				CLM	CBL	CYN			
MACH	ALPHA	CN	CA	.10319	.01172	-.05527	-.22707	.16065	
.980	-2.339	.11258	.15125	.07979	.01118	.01134	-.08137	-.141341	
.981	-.055	-2.11808	-.08152	.15000	.05763	-.01204	-.05607	.15008	
.980	2.189	2.11270	.05550	.14726	.03437	-.01173	-.05630	.14927	
.980	4.463	2.10726	.20511	.14434	.01577	-.01132	-.01104	.19324	.04984
.980	6.750	2.09825	.34299	.14224	.0141	-.01071	-.01161	.19324	.15989
.980	9.017	2.08502	.47987	.14026	.0141	-.01071	-.01235	.19324	.15989
.980	11.263	2.06356	.60470	.14095	-.00924	-.01137	-.01215	.19324	.15989
.980	13.531	2.04576	.74267	.14007	-.02429	-.01151	-.01276	.19324	.15989
.979	15.758	2.03394	.85509	.13988	-.03215	-.01130	-.00963	.19324	.15989
.980	17.992	2.01391	.97913	.13771	-.03679	-.01238	-.00715	.19324	.15989
GRADIENT	-.00094	.06410	-.00104	.01009	-.00026	-.00010	-.00018	.19324	.15989
MACH	ALPHA	CN	CA	.10817	.00896	.01022	-.05242	CD	
1.201	-2.292	2.08947	.19529	.17674	.07292	.00948	-.05268	L/D	
1.201	-.016	2.09691	-.05431	.17639	.04184	-.00905	-.05326	-.18441	
1.201	2.269	2.03910	.08673	.17560	.01582	-.00900	-.05048	-.05427	
1.201	4.535	2.09248	.22448	.17454	.00769	-.00956	-.0756	.17641	
1.201	6.796	2.07492	.35399	.17258	-.02051	-.01058	-.04875	.17890	
1.201	9.060	2.06044	.47582	.16796	.0113	.00695	-.04609	.19174	
1.200	11.362	2.03866	.60942	.16299	-.03221	-.01113	-.04526	.19174	
1.200	13.629	2.03601	.74122	.16138	-.04494	-.00916	-.05168	.19174	
1.200	15.902	2.02010	.86310	.16069	-.05736	-.00901	-.05168	.19174	
1.200	18.149	2.00542	.97879	.15776	-.06516	-.00888	-.05188	.19174	
GRADIENT	.00049	.06151	-.00032	-.01354	-.00001	-.00001	-.000023	.19174	

BETA =	2.000	ELEVON =	.000
RUDDER =	-5.000	SPDBRK =	55.000
BDFLAP =	.000		

PARAMETRIC DATA	
CD	
L/D	

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 33
(RKJ018) (23 AUG 77)

REFERENCE DATA

SREF	2690.0000	SQ.FT.	XMRP	=	1076.7000	IN.	XO
LREF	474.8000	INCHES	YMRP	=	.0000	IN.	YO
BREF	936.6800	INCHES	ZMRP	=	375.0000	IN.	ZO
SCALE	.0150						

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	GRADIENT INTERVAL = -5.00/ 5.00	
.600	-6.060	10.79824	.47446	.04184	.03675	.00907	-.00709	.11006		
.600	-4.010	10.75059	.46092	.04230	.04303	.00326	-.00160	.06698		
.600	-2.009	10.73453	.46101	.04295	.04570	-.00166	.00249	.02636		
.600	-1.010	10.72705	.45790	.04362	.04795	-.00383	.00394	.00892		
.599	.012	10.72735	.45934	.04312	.04760	-.00598	.00555	.01125		
.600	1.015	10.72764	.45898	.04350	.04703	-.00839	.00720	.00720		
.600	2.027	10.73819	.46460	.04210	.04477	-.01052	.00911	.03111		
.600	4.043	10.74769	.45827	.04104	.04354	-.01575	.01314	.09057		
.600	6.060	10.79068	.46659	.03961	.04069	-.02087	.01783	.12901		
.599	GRADIENT	-.00008	-.00005	-.00016	-.00002	-.00232	-.00178	-.01952	-.00002	

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	GRADIENT INTERVAL = -5.00/ 5.00	
.800	-6.077	11.01180	.48374	.07402	.03940	.00672	-.00727	.11550		
.800	-4.031	10.96962	.47827	.07472	.04217	.00221	-.00234	.07100		
.800	-1.991	10.94930	.47605	.07375	.04536	-.00193	.00284	.02638		
.800	-1.012	10.93925	.47228	.07413	.04685	-.00331	.00445	.00640		
.801	.002	10.93789	.47147	.07437	.04725	-.00469	.00625	.01424		
.800	1.075	10.94657	.47624	.07412	.04612	-.00638	.00812	.03598		
.800	2.043	10.94843	.47528	.07313	.04473	-.00803	.00966	.04599		
.800	4.082	10.97604	.48038	.07311	.04298	-.01304	.01401	.09645		
.800	6.088	10.99974	.47695	.07271	.04035	-.01742	.01857	.13914		
.800	GRADIENT	.00074	.00026	-.00019	.00003	-.00179	.00195	-.02053	.00029	

PARAMETRIC DATA

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	GRADIENT INTERVAL = -5.00/ 5.00	
.900	-6.125	11.08637	.49297	.10046	.03364	.00939	-.00916	.12721		
.901	-4.064	11.03927	.48713	.10185	.03401	.00526	-.00436	.08039		
.899	-2.038	11.01959	.48866	.10116	.03366	.00055	.00146	.03257		
.900	-1.015	11.00623	.48421	.10135	.03359	-.00200	.00331	.00967		
.900	-.004	11.01646	.49020	.10134	.03340	-.00403	.00537	.01321		
.900	1.024	11.01537	.48833	.10118	.03401	-.00645	.00769	.03609		
.900	2.062	11.02284	.48904	.10070	.03475	-.00923	.01011	.05892		
.901	4.111	11.16129	.49837	.10100	.03298	-.01429	.01521	.10540		
.900	6.111	11.10282	.50219	.10060	.03205	-.01883	.01942	.14910		
.900	GRADIENT	.00244	.00116	-.00010	-.00004	-.00236	.00233	-.02263	.00015	

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER, SILTS POD ON

REFERENCE DATA

SREF	=	2690.0000	SQ.FT.	XMRP	=	1076.7000	N.	X0
LREF	=	474.8000	INCHES	YMRP	=	.0000	N.	Y0
BREF	=	936.6800	INCHES	ZMRP	=	375.0000	N.	Z0
SCALE	=	.0150						

RUN NO. 86/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CBL	CYN	CY	CZ	CD	L/D
.980	.11.30911	.59856	.13968	-.00276	.01015	.11353	.25435	.55954	.25499	2.19990
.981	-.4.060	.11.27507	.60307	-.00744	.00469	.06823	.25410	.56410	.25499	2.21220
.980	-.2.028	.11.23014	.59457	.13943	-.01049	.00043	.02607	.55603	.25256	2.20161
.980	-.989	.11.23666	.60091	.14000	-.01116	.00355	.0470	.56211	.25441	2.20945
.980	.012	.11.24127	.60481	.14011	-.01215	.00628	.00702	.56589	.25533	2.21635
.980	1.040	.11.24622	.60593	.14055	-.01164	.00698	.00942	.56688	.25602	2.21422
.980	2.058	.11.24358	.60079	.14063	-.00983	.01137	.01224	.56183	.25508	2.20260
.960	4.102	.11.27945	.60622	.14089	-.00842	.01649	.01821	.56696	.25674	2.20832
.980	6.090	.11.32100	.60861	.13928	-.00758	.02151	.02444	.56942	.25604	2.22235
.979	GRADIENT	.00127	.00070	.00017	-.00007	-.00263	.00275	.00065	.00032	-.00020

RUN NO. 83/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CBL	CYN	CY	CZ	CD	L/D
1.200	11.43121	.61532	.16434	-.03331	.00852	.0076	.09177	.57055	.28303	2.01587
1.200	-.4.066	.11.38688	.61190	.16358	-.03350	.00442	.00275	.56756	.28117	2.01854
1.200	-2.012	.11.36465	.61298	.16322	-.03525	-.00660	.00415	.02382	.56880	2.02554
1.200	-.981	.11.36296	.61464	.16295	-.03538	-.00337	.00433	.00756	.57049	2.03118
1.200	.001	.11.35539	.61115	.16264	-.03401	-.00613	.00493	-.00916	.56716	.27978
1.200	1.049	.11.36757	.61508	.16282	-.03350	-.00880	.00581	-.02774	.57092	2.03279
1.200	2.049	.11.35628	.60700	.16292	-.03231	-.01109	.00703	-.04574	.56304	.27925
1.200	4.113	.11.36176	.59932	.16323	-.03163	-.01503	.00976	-.08364	.55542	.27810
1.200	6.128	.11.42404	.61044	.16555	-.03099	-.01924	.01177	-.11875	.56556	.28318
1.198	GRADIENT	-.00262	-.00144	-.00005	-.00035	-.00243	-.00082	-.01729	-.00139	-.00036

PAGE 34

(RKJ018) (23 AUG 77)

PARAMETRIC DATA

ALPHA	=	11.000	ELEVON	=	.000
RUDDER	=	-5.000	SPDBRK	=	55.000
BFDFLAP	=	.000			

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 35

(SKJ001) (23 AUG 77)

REFERENCE DATA

SREF =	2690 .0000	SQ.FT.	XMRP =	1076 .7000	IN. XO	
LREF =	474 8000	INCHES	YMRP =	.0000	IN. XO	
BREF =	936 .6800	INCHES	ZMRP =	375 .0000	IN. ZO	
SCALE =	.0150					

RUN NO. 21/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.800	-2.290	577.09526	3.50814	-.21960	-.23654
.799	-.081	576.52735	3.50425	-.21512	-.23346
.800	2.126	576.00698	3.50176	-.20956	-.22863
.799	4.324	576.33234	3.49711	-.20433	-.22721
.800	6.551	576.60698	3.49597	-.20204	-.22584
.800	8.746	576.65150	3.495976	-.20357	-.23300
.800	10.949	577.07640	3.50100	-.21151	-.24436
.800	13.135	576.91716	3.50115	-.23052	-.28051
.800	15.369	576.66778	3.50084	-.25946	-.31095
.800	17.592	577.35080	3.50276	-.28800	-.33500
	GRADIENT	-.10021	-.00161	.00233	.00149

RUN NO. 16/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.900	-2.318	625.01714	3.50927	-.24068	-.25603
.901	-.075	625.79397	3.50585	-.23558	-.25103
.900	2.172	625.24166	3.50252	-.22941	-.24754
.901	4.416	625.07113	3.50243	-.22434	-.24639
.901	6.608	626.02222	3.50041	-.21979	-.24677
.900	8.842	625.22739	3.49673	-.22184	-.25100
.900	11.027	625.45131	3.49875	-.23241	-.26294
.900	13.240	625.08570	3.50078	-.25232	-.29765
.900	15.473	625.39483	3.50285	-.27602	-.32512
.900	17.693	625.49704	3.50428	-.29662	-.33200
	GRADIENT	.07203	-.00111	.00246	.00144

RUN NO. 15/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.951	-2.358	647.51298	3.50615	-.27923	-.29484
.952	-.081	648.03801	3.50311	-.27305	-.28718
.952	2.196	648.33463	3.50416	-.26912	-.28203
.952	4.461	648.44821	3.50426	-.26373	-.27701
.952	6.710	648.02636	3.50491	-.25838	-.27265
.950	8.918	647.33288	3.50618	-.25701	-.28647
.950	11.211	647.05246	3.50553	-.27230	-.31239
.950	13.394	646.83726	3.50415	-.29810	-.35848
.950	15.665	646.99867	3.50445	-.32339	-.40146
.950	17.887	647.05246	3.50456	-.35398	-.42736
	GRADIENT	.13916	-.00020	.00222	.00258

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO	-
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO	-
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO	-
SCALE =	.0150					

RUN NO. 12/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.980	-2.371	659.23865	3.50112	-.34040	-.36165
.980	-.078	659.39150	3.50737	-.33219	-.35537
.981	2.219	659.62087	3.50973	-.32952	-.35426
.980	4.468	659.40665	3.50557	-.32881	-.35296
.980	6.717	659.37634	3.50526	-.33353	-.35491
.980	8.959	659.05496	3.50470	-.34078	-.37621
.980	11.224	659.07010	3.50485	-.36505	-.41474
.980	13.457	659.02416	3.50477	-.39344	-.44681
.980	15.743	659.42242	3.50635	-.41236	-.48452
.981	17.996	659.66673	3.50055	-.44423	-.49629
	GRADIENT	.03235	.00069	.00164	.00119

RUN NO. 9/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
1.119	-2.340	707.20045	3.50399	-.34786	-.35308
1.119	-.048	707.24552	3.50403	-.34512	-.36075
1.120	2.236	707.65243	3.50393	-.34776	-.37210
1.120	4.524	707.45687	3.50260	-.35232	-.37745
1.120	6.780	707.30617	3.50229	-.36053	-.38789
1.119	9.040	707.26111	3.50224	-.36215	-.38481
1.120	11.312	707.68373	3.50231	-.36423	-.39817
1.119	13.575	707.15537	3.50002	-.38847	-.42050
1.120	15.885	707.60938	3.49946	-.42033	-.45297
1.119	18.141	707.29057	3.49623	-.45318	-.48232
	GRADIENT	.05140	-.00019	-.00070	-.00369

PAGE 36
(SKJ001) (23 AUG 77)

PARAMETRIC DATA

BETA =	.000	ELEVON = .000
RUDDER =	.000	SPDBRK = .000
BDFLAP =		25.000

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

PAGE 37

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

(SKJ001) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO	BETA =	.000
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO	RUDDER =	.000
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO	BDF/LAP =	.000
SCALE =	.0150						

RUN NO. 6 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(IPSF)	RN/L	CPB1	CPB2
1.201	-2.290	730.11893	3.50388	-.35027	-.35390
	-.026	730.22751	3.50547	-.34607	-.35024
1.201	2.245	730.24874	3.50448	-.34078	-.35558
1.201	4.5C9	730.12680	3.50408	-.34566	-.36371
1.201	6.784	729.94884	3.50285	-.35715	-.37389
1.200	9.066	729.74329	3.50301	-.36665	-.39650
1.200	11.334	729.69289	3.50084	-.37524	-.39326
1.200	13.616	729.98761	3.50185	-.38727	-.41003
1.200	15.884	729.89451	3.50164	-.41405	-.43885
1.199	18.167	729.77998	3.49946	-.44180	-.45746
1.199	20.364	729.46368	3.49844	-.45302	-.46152
1.200	22.624	729.92950	3.50047	-.47158	-.47928
	GRADIENT	.00198	-.00002	.00084	-.00153

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

(SKJ002) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO	BETA =	2.000
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO	RUDDER =	.000
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO	BDF/LAP =	.000
SCALE =	.0150						

RUN NO. 22 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(IPSF)	RN/L	CPB1	CPB2
.799	-2.288	576.32607	3.49795	-.22358	-.25029
.799	-.084	576.53362	3.49761	-.21924	-.24554
.800	2.097	576.87526	3.49953	-.21432	-.24129
.800	4.330	576.73485	3.49908	-.20846	-.23640
.799	6.549	576.25897	3.49779	-.20449	-.23466
.800	8.757	576.66150	3.49976	-.20505	-.23876
.800	10.950	575.74741	3.50029	-.21285	-.25355
.800	13.142	577.14343	3.50310	-.23084	-.28589
.800	15.388	577.15602	3.50334	-.25994	-.30974
.800	17.639	576.81448	3.50239	-.29086	-.33378
	GRADIENT	.07096	.00024	.00228	.00208

(SKJ002) (23 AUG 77)

LAI11 TABULATED DATA LISTING
LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

DATE 30 NOV 77

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000 IN.	XO
LREF =	474.8000	INCHES	YMRP =	.0000 IN.	XO
BREF =	936.6800	INCHES	ZMRP =	375.0000 IN.	ZO
SCALE =	.0150				

RUN NO.	19 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00
MACH	ALPHA	Q(PSF)		RNL	CPB1
.900	-2.345	624.99887	3.50121	-24563	-27072
.900	-.087	625.32337	3.50127	-23968	-26375
.900	2.148	625.45131	3.50166	-23292	-25484
.900	4.394	625.22262	3.50130	-22603	-24936
.900	6.561	625.13599	3.50076	-22137	-24826
.900	8.837	625.15426	3.50104	-22250	-25534
.900	11.029	625.74817	3.50325	-23508	-27053
.901	13.227	625.58638	3.50412	-25414	-30437
.901	15.491	625.58388	3.50412	-27834	-32892
.900	17.690	625.27310	3.50323	-30141	-34769
	GRADIENT	.03568	.00003	.00292	.00325

RUN NO.	16 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00
MACH	ALPHA	Q(PSF)		RNL	CPB2
.951	-2.347	647.53762	3.50449	-27897	-30937
.951	-.075	647.83835	3.50607	-27347	-30056
.952	2.161	648.26411	3.50658	-27639	-29454
.952	4.448	648.34104	3.50698	-26596	-29011
.952	6.704	648.11494	3.50643	-26018	-29069
.952	8.948	647.42876	3.50526	-25833	-29646
.951	11.187	647.10624	3.50466	-27350	-31836
.950	13.419	646.98710	3.50333	-29621	-36440
.950	15.646	646.85793	3.50298	-32284	-39774
.950	17.905	647.10624	3.50466	-35126	-39577
.950	GRADIENT	.12457	.00035	.00186	.00282

RUN NO.	13 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00
MACH	ALPHA	Q(PSF)		RNL	CPB1
.980	-2.355	659.45254	3.50565	-33574	-36807
.981	-.070	659.76650	3.50523	-33186	-36174
.980	2.179	659.33045	3.50421	-32205	-35659
.980	4.490	659.39150	3.50444	-32871	-35777
.980	6.725	659.34560	3.50436	-33719	-36606
.980	8.993	659.11603	3.50396	-34629	-38819
.980	11.231	659.02416	3.50380	-36386	-42628
.981	13.496	659.83431	3.50684	-38815	-46474
.980	15.737	659.31438	3.50190	-41027	-47488
.980	18.002	659.25331	3.50167	-42123	-47240
	GRADIENT		-.00020	.00127	.00158
			-.02700		

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 39

(SKJ002) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. X0
LREF =	474.8000	INCHES	YMRP =	.0000	IN. X0
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. Z0
SCALE =	.0150				

RUN NO.	10/ 0	RN/L =	3.49	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
1.120	-2.347	707.72870	3.49941	-.35007	-.36099
1.121	-.056	707.69304	3.49810	-.34822	-.36608
1.121	2.225	707.82986	3.49872	-.34759	-.36991
1.120	4.507	707.57410	3.49915	-.35479	-.37709
1.119	6.786	707.29057	3.50113	-.36366	-.38363
1.119	9.072	707.35121	3.50233	-.36239	-.38448
1.120	11.315	707.53313	3.50397	-.36371	-.39788
1.120	13.608	707.74435	3.49959	-.39106	-.42048
1.121	15.881	708.04522	3.49824	-.42712	-.45090
1.119	18.164	707.13979	3.48811	-.44673	-.47108
GRADIENT	-.01431	-.00014	-.00059	-.00228	
RUN NO.	7/ 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
1.200	-2.317	729.91402	3.50009	-.34804	-.35156
1.201	-.036	729.94884	3.50089	-.34858	-.35383
1.201	2.240	730.04959	3.50129	-.34747	-.36706
1.201	4.509	729.94884	3.50089	-.34771	-.36532
1.201	6.795	729.99222	3.50109	-.35985	-.37377
1.200	9.043	729.82871	3.50106	-.37347	-.38823
1.199	11.368	729.80901	3.50459	-.37564	-.39117
1.201	13.614	730.07645	3.50190	-.39158	-.41662
1.200	15.900	729.98571	3.50227	-.41622	-.44036
1.200	18.175	729.82274	3.50045	-.43685	-.45479
1.200	20.408	729.88682	3.49998	-.45167	-.46200
1.200	22.635	729.90816	3.50047	-.47427	-.48793
GRADIENT	.00012	.00094	.00009	-.00196	

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN.	XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN.	YO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN.	ZO
SCALE =	.0150					

RUN NO. 23 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
.800	-6.116	577.08269	3.49919	-.23567	-.25506
	-4.067	576.59443	3.49852	-.22500	-.24669
.799	-2.058	576.17933	3.49834	-.21401	-.21401
	-1.028	576.75359	3.50137	-.21216	-.24462
.800	-.023	577.01554	3.50192	-.21139	-.24535
	.999	577.22934	3.50265	-.21145	-.24800
.800	2.036	576.88154	3.50159	-.21294	-.25294
	4.064	576.45399	3.49913	-.22230	-.25971
.799	6.093	576.67406	3.50000	-.22785	-.25364
	GRADIENT	.03080	.00023	.00031	-.00158

RUN NO. 20 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
.900	-6.134	625.27310	3.50129	-.26238	-.28845
	-4.088	625.51070	3.50275	-.24898	-.27936
.901	-2.044	625.44216	3.50249	-.23697	-.27167
	-1.023	625.45131	3.50350	-.23380	-.26812
.900	-.020	624.95682	3.50150	-.23233	-.26390
	1.018	625.31423	3.50211	-.23411	-.26692
.900	2.042	625.27310	3.50129	-.23476	-.27187
	4.081	625.70713	3.50146	-.24435	-.28130
.901	6.121	625.34166	3.50058	-.25602	-.28184
	GRADIENT	.00739	-.00021	.00053	-.00017

RUN NO. 17 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
.951	-6.102	647.39395	3.50385	-.28980	-.32374
	-4.097	646.96394	3.50304	-.27723	-.31598
.950	-2.041	647.10624	3.50368	-.27203	-.31224
	-1.030	646.93330	3.50421	-.27173	-.31109
.950	-.017	646.92867	3.50445	-.27232	-.31229
	1.010	646.93330	3.50421	-.27308	-.31599
.950	2.047	647.11783	3.50480	-.27435	-.31994
	4.064	646.87950	3.50410	-.27787	-.32115
.950	6.099	647.06404	3.50276	-.28980	-.33183
	GRADIENT	-.00725	.00015	-.00020	-.00096

PAGE 40

(SKJ003) (23 AUG 77)

PARAMETRIC DATA

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 41

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. X0	
LREF =	474.8000	INCHES	YMRP =	.0000	IN. Y0	
BREF =	936.6800	INCHES	ZMRP =	.375.0000	IN. Z0	
SCALE =	.0150					

RUN NO.	14 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00				
	MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2			
	.981	-6.120	659.59018	3.50590	-.37637	-.40428			
	.980	-4.066	659.52914	3.50468	-.36870	-.41547			
	.980	-2.037	659.49843	3.50281	-.37098	-.42086			
	.981	-1.046	659.69739	3.50387	-.37085	-.42012			
	.980	-7.010	659.36118	3.50413	-.36804	-.41698			
	.980	1.012	659.46810	3.50445	-.3521	-.42234			
	.981	2.042	659.55984	3.50656	-.36859	-.43047			
	.980	4.068	659.42222	3.50534	-.37246	-.41875			
	.980	6.091	659.33045	3.50421	-.37476	-.41157			
	GRADIENT	- .01256	.000025	-.000020	-.00081				
	RUN NO.	11 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00			
	MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2			
	1.121	-6.136	707.95097	3.49523	-.39518	-.39821			
	1.121	-4.086	707.96431	3.50179	-.3765	-.39401			
	1.121	-2.083	707.91951	3.50568	-.37737	-.40435			
	1.121	-1.025	708.00909	3.50576	-.37514	-.40346			
	1.121	-.015	708.05366	3.50777	-.36524	-.39826			
	1.121	1.012	708.05336	3.50384	-.36378	-.39636			
	1.121	2.035	707.99334	3.50362	-.36517	-.39831			
	1.121	4.065	707.84557	3.50281	-.37278	-.39954			
	1.120	6.098	707.60545	3.5014	-.39667	-.40395			
	GRADIENT	- .00652	-.00005	-.00120	-.00006				
	RUN NO.	8 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00			
	MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2			
	1.199	-6.109	729.70818	3.50418	-.40455	-.40432			
	1.200	-4.070	729.75697	3.50381	-.38757	-.39462			
	1.200	-2.049	729.90815	3.50244	-.37754	-.39978			
	1.200	-1.030	729.82099	3.50185	-.37634	-.39783			
	1.200	-.016	729.86364	3.50186	-.37530	-.39386			
	1.200	1.009	729.87138	3.50205	-.37677	-.39424			
	1.200	2.049	729.85005	3.50203	-.37620	-.39172			
	1.200	4.055	729.78602	3.50302	-.38265	-.39643			
	1.200	6.110	729.76466	3.50302	-.39783	-.40530			
	GRADIENT	.00118	-.00018	.00051	.00029				

PARAMETRIC DATA

(SKJ003)	(23 AUG 77)	PAGE	41
ALPHA =	11.000	ELEVON =	.000
RUDDER =	.000	SPDBRK =	.25.000
BDFLAP =	.000		

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD ON

(SKJ004) (23 AUG 77)
PAGE 42

REFERENCE DATA

SREF =	2690.0000	SO. F.T.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO.	39/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PSF)	RNL	CPB1	CPB2
.800	-2.287	576.66150	3.49976	-.21981	-.23757
.801	-.098	577.53921	3.50205	-.21608	-.23536
.799	2.115	576.39317	3.49907	-.21042	-.23007
4.336	576.11222	3.49817	-.20405	-.22789	
.799	6.553	576.61266	3.49995	-.20169	-.22798
.799	8.741	576.51480	3.49918	-.20324	-.23213
.800	10.955	577.22334	3.50170	-.21055	-.24462
.800	13.129	577.35710	3.50191	-.23054	-.28198
.799	15.361	576.46026	3.49925	-.25767	-.30943
.800	17.575	576.74741	3.50125	-.26625	-.33302
GRADIENT		-.12700	-.00035	.00240	.00148

RUN NO.	36/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PSF)	RNL	CPB1	CPB2
.900	-2.324	625.03539	3.50759	-.24110	-.25643
.900	-.066	625.40106	3.50264	-.2355	-.25211
.901	2.172	625.75291	3.50020	-.22934	-.24716
.899	4.410	624.47280	3.49538	-.22432	-.24716
.900	6.617	624.94857	3.49638	-.21933	-.24697
.900	8.832	624.89825	3.49639	-.22087	-.25142
.901	11.027	625.92186	3.50335	-.23291	-.26454
.900	13.232	625.40106	3.50264	-.25299	-.29728
.900	15.495	624.78844	3.50112	-.27555	-.32442
.900	17.709	625.19541	3.50283	-.23843	-.33572
GRADIENT		-.05927	-.00174	.00252	.00146

RUN NO.	33/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PSF)	RNL	CPB1	CPB2
.950	-2.347	646.82907	3.50289	-.27793	-.29270
.951	-.082	647.19363	3.50345	-.27278	-.28620
.951	2.166	647.19363	3.50345	-.26788	-.28131
.951	4.434	647.13261	3.50383	-.26202	-.27485
.950	6.688	646.93559	3.50017	-.25671	-.27040
.949	8.921	646.33331	3.49891	-.25618	-.26445
.950	11.179	646.50634	3.50131	-.27131	-.31168
.949	13.384	646.21407	3.50148	-.29667	-.35712
.950	15.639	646.45252	3.50315	-.32365	-.40082
.949	17.878	646.42181	3.50334	-.35332	-.42543
GRADIENT			.04032	.00233	.00259

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 43

(SKJ004) (23 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
 LREF = 474.8000 INCHES
 BREF = 936.6800 INCHES
 SCALE = .0150

XMRP = 1076.7000 IN. X0
 YMRP = .0000 IN. X0
 ZMRP = .375.0000 IN. Z0

RUN NO.	RN/L	3.50	GRADIENT INTERVAL = -5.00/ 5.00			
			Q(IPSF)	RN/L	CPB1	CPB2
	MACH	ALPHA	659.39106	3.50971	-.34224	-.36363
	.980	-2.351	659.16288	3.50619	-.33278	-.35575
	.980	-.072	658.36794	3.49699	-.32636	-.34935
	.979	2.185	658.53608	3.50054	-.32751	-.35002
	.979	4.449	658.67337	3.49923	-.33215	-.35220
	.980	6.743	658.29044	3.50232	-.33870	-.37407
	.979	8.965	658.55120	3.50265	-.36214	-.41177
	.979	11.201	659.01002	3.50384	-.39411	-.44728
	.980	13.472	658.19912	3.49982	-.40386	-.47608
	.979	15.700	659.07061	3.49765	-.43960	-.49175
	.980	17.978	659.14826	-.00149	.00224	.00209
	GRADIENT					
RUN NO.	27 / 0	RN/L	3.49	GRADIENT INTERVAL = -5.00/ 5.00		
	MACH	ALPHA	Q(IPSF)	RN/L	CPB1	CPB2
	1.120	-2.346	707.80269	3.50916	-.35017	-.35007
	1.121	-.042	707.8803	3.50238	-.34790	-.36354
	1.121	2.261	707.90377	3.50059	-.34903	-.37405
	1.120	4.543	707.72870	3.50138	-.35375	-.37990
	1.121	6.785	707.81414	3.50050	-.36245	-.38914
	1.119	9.037	707.35121	3.50233	-.36281	-.38661
	1.120	11.316	707.48811	3.50393	-.36508	-.40085
	1.120	12.434	707.33560	3.49823	-.37490	-.41234
	1.119	15.850	707.33736	3.49969	-.41910	-.45302
	1.119	18.131	707.30617	3.49445	-.45359	-.48369
	GRADIENT		-.00894	-.00110	-.00052	-.00370
RUN NO.	24 / 0	RN/L	3.50	GRADIENT INTERVAL = -5.00/ 5.00		
	MACH	ALPHA	Q(IPSF)	RN/L	CPB1	CPB2
	1.200	-2.325	729.74329	3.50301	-.35121	-.35497
	1.200	-.048	729.92177	3.50324	-.34742	-.35130
	1.200	2.217	729.95663	3.50305	-.34166	-.35541
	1.201	4.477	729.94684	3.50198	-.34573	-.36479
	1.200	6.785	730.01478	3.50345	-.35690	-.37464
	1.201	9.001	730.39650	3.50407	-.36654	-.38181
	1.200	11.306	729.96626	3.50185	-.37441	-.39224
	1.200	13.538	730.36941	3.50543	-.38851	-.41174
	1.200	15.832	729.94309	3.49930	-.41125	-.43826
	1.200	18.075	729.67151	3.49886	-.44097	-.45712
	GRADIENT		.02877	-.00016	.00098	-.00148

LARC BFT TPT 786(LA111) ORBITER,SILTS POD ON

(SKJ005) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.F.T.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO. 40 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.800	-2.294	577.00936	3.49987	-.22285	-.25033
.800	-1.111	576.94231	3.49970	-.21930	-.24555
.800	2.090	576.74113	3.49727	-.21525	-.24220
.800	4.315	577.07011	3.49799	-.20892	-.23741
.800	6.543	576.93562	3.49765	-.20420	-.23431
.800	8.720	576.80620	3.49840	-.20563	-.24053
.800	10.921	576.79563	3.50106	-.21331	-.25412
.800	13.111	577.21046	3.50327	-.25046	-.26562
.800	15.359	577.43041	3.50413	-.25960	-.30853
.799	17.592	576.53990	3.50159	-.28896	-.33218
	GRADIENT	-.00068	-.00037	.00210	.00191

RUN NO. 37 / 0 RN/L = 3.5C GRADIENT INTERVAL = -5.00 / 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.900	-2.340	625.35080	3.50363	-.24414	-.26959
.900	-.081	625.33251	3.50238	-.23946	-.26428
.900	2.166	625.40106	3.50167	-.23310	-.25578
.901	4.390	625.71629	3.50159	-.22590	-.24971
.900	6.604	524.95769	3.49845	-.22123	-.24912
.900	8.825	625.40106	3.49973	-.22234	-.25641
.900	11.029	625.11309	3.50119	-.23499	-.27159
.900	13.254	625.30508	3.50197	-.25303	-.30365
.900	15.476	624.988507	3.50274	-.27698	-.32773
.900	17.701	624.84791	3.50222	-.30164	-.34667
	GRADIENT	.05180	-.00030	.00272	.00304

RUN NO. 34 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.951	-2.369	647.04407	3.50135	-.27908	-.30998
.951	-.035	647.42002	3.50205	-.27104	-.30066
.951	2.168	647.09781	3.50145	-.26877	-.29284
.950	4.442	646.87124	3.50090	-.26420	-.28865
.950	6.694	646.72153	3.50074	-.25776	-.28785
.950	8.932	646.65616	3.50146	-.25803	-.29571
.950	11.199	646.49477	3.50213	-.27328	-.31805
.950	13.425	646.51790	3.50340	-.29532	-.36259
.949	15.672	646.34466	3.50295	-.32064	-.38704
.950	17.922	646.79847	3.50405	-.35044	-.39768
	GRADIENT	-.03701	-.00009	.00220	.00316

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
 LREF = 474.8000 INCHES
 BREF = 936.6800 INCHES
 SCALE = .0150

RUN NO. 31/ 0 RN/L = 3.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.980	-2.365	658.82633	3.50157	-.33524	-.36602
.980	-.091	659.11740	3.50182	-.33019	-.35954
.980	2.169	658.75012	3.50118	-.32494	-.35441
.980	4.449	658.68905	3.49997	-.32748	-.35527
.980	6.717	658.64193	3.50134	-.33671	-.36424
.980	8.974	658.76526	3.50521	-.34705	-.38692
.979	11.218	658.18333	3.50395	-.35833	-.41955
.980	13.469	659.08575	3.50657	-.38369	-.45571
.979	15.737	658.18333	3.50005	-.40597	-.47209
.980	17.959	658.96499	3.49326	-.42474	-.47908
GRADIENT -.03428 -.00024					

RUN NO. 28/ 0 RN/L = 3.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
1.119	-2.354	707.5354	3.51027	-.35027	-.36123
1.120	-.060	707.53122	3.51137	-.34850	-.36583
1.120	2.222	707.60545	3.51123	-.34884	-.37208
1.119	4.507	707.29057	3.50802	-.35636	-.38006
1.120	6.772	707.56435	3.50529	-.35432	-.38750
1.119	9.034	707.24719	3.49961	-.36332	-.38825
1.119	11.331	707.46036	3.49865	-.36500	-.40110
1.119	13.593	707.50372	3.49821	-.39084	-.42233
1.119	15.874	707.12583	3.49427	-.42401	-.45089
1.119	18.142	707.30617	3.48859	-.44798	-.47236
GRADIENT -.03310 -.00081					

RUN NO. 25/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
1.201	-2.321	730.16376	3.50151	-.34870	-.35236
1.201	-.021	730.07087	3.50130	-.35073	-.35633
1.200	2.219	729.91402	3.50107	-.34845	-.35905
1.200	4.494	729.84232	3.50186	-.34688	-.36630
1.200	6.760	729.86545	3.50243	-.36054	-.37579
1.200	9.014	730.00122	3.50364	-.37320	-.38833
1.200	11.291	729.90625	3.50384	-.37651	-.39282
1.200	13.592	730.26167	3.50425	-.39171	-.41613
1.200	15.848	729.82871	3.49909	-.41685	-.44364
1.200	18.118	729.92950	3.49949	-.4374	-.45521
GRADIENT -.04940 -.00004					

PAGE 45

(SKJ005) (23 AUG 77)

PARAMETRIC DATA

BETA = 2.000
 RUDDER = .000
 BDFLAP = .000

ELEVON = 2.000
 SPDBRK = 25.000

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

(SKJ006) (23 AUG 77)

REFERENCE DATA

SREF =	2690	0000	SQ.FT.	XMRP =	1076.7000	I.N.	XO
LREF =	474	8000	INCHES	YMRP =	.0000	I.N.	YO
BREF =	936	6800	INCHES	ZMRP =	375.0000	I.N.	ZO
SCALE =							.0150

RUN NO. 41/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
.800	-6.089	576.52107	3.49737	-.23184	-.25505
.800	-4.074	576.80181	3.50021	-.22567	-.24780
.800	-2.042	576.79563	3.50009	-.21400	-.24739
.800	-1.023	576.922974	3.50043	-.21299	-.24611
.800	-1.004	576.594443	3.49959	-.21214	-.24665
.799	1.010	576.32607	3.49892	-.21237	-.24936
.801	2.024	577.55813	3.50241	-.21291	-.25312
.800	4.062	576.60220	3.50033	-.22154	-.26001
.800	6.096	577.01936	3.50277	-.22710	-.25471
GRADIENT		.02210	.00008	.00045	-.00149

RUN NO. 38/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
.900	-6.114	624.76109	3.49974	-.26339	-.29036
.900	-4.091	625.21359	3.50116	-.24853	-.27863
.901	-2.053	625.64776	3.50327	-.23605	-.27073
.901	-1.023	625.44215	3.50249	-.23296	-.26601
.900	-1.005	625.34166	3.50252	-.23338	-.26466
.900	1.012	625.46046	3.50277	-.23397	-.26777
.900	2.048	625.26397	3.50212	-.23518	-.27216
.901	4.090	626.03139	3.50443	-.24398	-.28042
.901	6.116	625.36448	3.50209	-.25666	-.28097
GRADIENT		.05865	.00026	.00046	-.00028

RUN NO. 35/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
.950	-6.093	646.81749	3.50469	-.29143	-.32562
.951	-4.072	646.99765	3.50368	-.27898	-.31894
.950	-2.030	646.89284	3.50299	-.27216	-.31336
.950	-1.012	646.99034	3.50124	-.27261	-.31441
.951	-1.019	647.05563	3.50149	-.27209	-.31438
.950	1.024	646.92499	3.50100	-.27312	-.31738
.950	2.023	646.77530	3.50181	-.27354	-.31927
.950	4.061	646.81749	3.50177	-.27904	-.32256
.950	6.105	646.86383	3.50235	-.29028	-.33195
GRADIENT		-.02349	-.00024	-.00008	-.00069

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

REFERENCE DATA

SREF =	2690.0000	SQ FT	XMRP =	1076.7000	IN.	XO	
LREF =	474.8000	INCHES	YMRP =	0.0000	IN.	YO	
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN.	ZO	
SCALE =	.0150						

RUN NO.	32/ 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
.980	-6.101	658.88790	3.49850	-.37505	-.40231
.980	-4.047	659.02562	3.49971	-.36818	-.41452
.980	-2.026	658.67391	3.49787	-.36562	-.41632
.980	-1.034	658.84198	3.49939	-.36689	-.41625
.980	-0.016	659.88790	3.50142	-.36496	-.41600
.980	1.014	659.70418	3.50205	-.36595	-.41917
.980	2.031	658.75012	3.50410	-.36378	-.42456
.980	4.046	658.71932	3.50418	-.36370	-.41578
.980	6.079	658.78092	3.50305	-.37641	-.41327
	GRADIENT	-.02849	.00080	.00005	-.00058
RUN NO.	29/ 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
1.120	-6.105	707.21248	3.49732	-.39194	-.39513
1.121	-4.076	707.78501	3.50358	-.37706	-.39524
1.121	-2.052	707.81414	3.50345	-.37733	-.40390
1.121	-1.022	707.91951	3.50174	-.37522	-.40312
1.121	-.020	707.94856	3.50161	-.36654	-.40172
1.122	1.028	708.19065	3.50249	-.36469	-.39974
1.121	2.040	707.94856	3.50161	-.36677	-.40284
1.121	4.068	707.82996	3.50166	-.37309	-.40212
1.121	6.102	707.69526	3.50153	-.39361	-.40194
	GRADIENT	.01691	-.00025	.00111	-.00051
RUN NO.	26/ 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
1.201	-6.138	729.89847	3.50069	-.40380	-.40361
1.201	-4.086	730.08430	3.49914	-.38813	-.39391
1.201	-2.060	730.13465	3.49934	-.37661	-.39867
1.200	-1.031	729.67752	3.50440	-.37575	-.33674
1.200	-.009	729.77832	3.50382	-.37584	-.39367
1.200	1.016	729.82871	3.50402	-.37626	-.39431
1.200	2.016	729.85776	3.50323	-.37644	-.39265
1.200	4.062	729.82099	3.50284	-.38239	-.39686
1.200	6.110	729.82871	3.50106	-.39677	-.40461
	GRADIENT	-.03409	.00052	.00053	.00006

(SKJ006) (23 AUG 77)

PARAMETRIC DATA

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

- LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

REFERENCE DATA

SREF =	2590.0000	SQ.FT.	XMRP =	1076.7000	IN. X0
LREF =	474.8000	INCHES	YMRP =	.0000	IN. X0
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. Z0
SCALE =	.0150				

RUN NO. 51 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.600	-2.200	461.39458	3.50932	-.25662	-.26724
.601	-.058	462.31609	3.51101	-.25609	-.26703
.600	2.091	461.81305	3.50517	-.25226	-.26510
.600	4.236	461.14668	3.49902	-.24654	-.26156
.500	6.398	461.80812	3.49915	-.24231	-.25910
.600	8.563	461.72674	3.49513	-.24116	-.25744
.600	10.743	461.48090	3.49344	-.24456	-.26428
.600	12.913	460.97602	3.49714	-.25349	-.268295
.600	15.089	461.14541	3.49385	-.26896	-.30842
.600	17.267	461.23011	3.50018	-.29141	-.34148
GRADIENT	- .05791	-.00171	.00088	.00157	

RUN NO. 48 / 0 RN/L = 3.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.901	-2.469	625.58838	3.49830	-.28419	-.29397
.900	-.087	625.45131	3.49778	-.28058	-.29100
.901	2.167	625.59793	3.49841	-.27578	-.28734
.901	4.407	626.03139	3.49958	-.27083	-.28530
.900	6.609	625.40106	3.50070	-.26350	-.28052
.900	8.851	625.41020	3.50181	-.26046	-.27697
.900	11.036	625.46961	3.50290	-.26791	-.28479
.900	13.251	625.28224	3.50434	-.28471	-.31272
.900	15.491	625.45131	3.50652	-.30046	-.32833
.900	17.725	625.36997	3.50682	-.31570	-.33306
GRADIENT	.06314	.00019	.00196	.00130	

RUN NO. 45 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.980	-2.329	659.49757	3.50749	-.37737	-.38573
.981	-.069	659.85790	3.50636	-.37399	-.38534
.981	2.229	659.60570	3.50176	-.36929	-.38281
.980	4.485	659.19273	3.50007	-.36816	-.38205
.980	6.777	659.35118	3.50121	-.37439	-.38432
.980	9.011	658.96308	3.50064	-.38383	-.40264
.979	11.253	658.79436	3.50047	-.40032	-.43150
.980	13.472	659.45254	3.50370	-.42526	-.47295
.980	15.737	659.49757	3.50651	-.43129	-.49614
.980	17.966	659.03929	3.49909	-.44856	-.50083
GRADIENT	-.05135	-.00118	.00134	.00060	

PAGE 48

(SKJ007) (23 AUG 77)

PARAMETRIC DATA

RUDDER =	.000	ELEVON = .000
BDFLAP =	.000	SPDBRK = .000

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

PAGE 49

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
 LREF = 474.8000 INCHES
 BREF = 936.6800 INCHES
 SCALE = .0150

RUN NO.	42/ 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PFSF)	RN/L	CPB1	CPB2
1.200	-2.292	729.73562	3.50085	.34594	.34698
1.200	.035	729.85005	3.50402	.35240	.35734
1.200	2.258	729.85005	3.50402	.35837	.36916
1.201	4.514	730.15012	3.50564	.36750	.38098
1.201	6.775	729.68518	3.50364	.38373	.39599
1.193	9.034	729.67637	3.50496	.39332	.40789
1.199	11.311	729.7622	3.50556	.40205	.41758
1.199	13.563	729.73720	3.50438	.40979	.42911
1.199	15.829	729.74482	3.50358	.42635	.44479
1.199	18.094	729.75860	3.49945	.44965	.46037
GRADIENT		.05472	.00063	-.00311	-.00501

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
 LREF = 474.8000 INCHES
 BREF = 936.6800 INCHES
 SCALE = .0150

RUN NO.	52/ 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PFSF)	RN/L	CPB1	CPB2
.600	-2.220	461.89772	3.49979	.26250	.28767
.600	-.060	461.55902	3.49829	.26116	.28600
.600	2.103	461.55902	3.49829	.25910	.28498
.600	4.243	461.39294	3.49771	.25473	.28097
.600	6.398	461.39294	3.49771	.24890	.27290
.600	8.568	461.72638	3.49904	.24545	.27167
.600	10.751	461.56334	3.43855	.24709	.27589
.600	12.917	461.56334	3.49855	.25773	.28943
.600	15.108	461.47598	3.49992	.27339	.31402
.599	18.354	460.89784	3.49903	.30366	.35719
GRADIENT		-.07027	-.00029	.00118	.00098

(SKJ007) (23 AUG 77)

PARAMETRIC DATA

BETA = .000
 RUDDER = .000
 BDFLAP = .000

(SKJ008) (23 AUG 77)

PARAMETRIC DATA

BETA = 2.000
 RUDDER = .000
 BDFLAP = .000

LARC BFT TPT 786(LA111) ORBITER,SILTS POD ON

(SKJ008) (23 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.F.T. XMRP = 1076.7000 IN. XO
 LREF = 474.8000 INCHES YMRP = .0000 IN. XO
 BREF = 936.6900 INCHES ZMRP = 375.0000 IN. ZO
 SCALE = .0150

RUN NO.	49 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
	MACH	ALPHA	Q(PSF)	RN/L	CPB1 CPB2
.900	-2.346	624.91649	3.49957	.29045	-.30784
.900	-.063	625.07657	3.50258	-.29366	-.29928
.900	2.150	625.45131	3.50360	-.27564	-.28897
.900	4.398	625.21369	3.50310	-.25624	-.28085
.901	6.626	625.51985	3.50386	-.26092	-.27718
.901	8.838	625.52900	3.50303	-.26003	-.28198
.900	11.065	625.15426	3.50201	-.26905	-.29076
.900	13.273	625.39192	3.50250	-.28288	-.31558
.900	15.498	624.84791	3.50125	-.29834	-.33029
.900	17.736	625.35080	3.50071	-.31469	-.33990
	GRADIENT	.05635	.00052	.00359	.00406
RUN NO.	46 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
	MACH	ALPHA	Q(PSF)	RN/L	CPB1 CPB2
.980	-2.359	659.31485	3.51030	.38073	-.39173
.981	-.075	659.76650	3.50913	-.37628	-.38968
.980	2.189	659.54431	3.50581	-.36891	-.38352
.980	4.473	659.48327	3.50160	-.37062	-.39523
.980	6.719	659.48327	3.50265	-.37698	-.39099
.980	8.982	659.08375	3.50170	-.38694	-.40791
.979	11.244	658.94739	3.50282	-.40147	-.43913
.980	13.500	659.36076	3.50354	-.42072	-.47527
.980	15.743	659.64998	3.50534	-.43396	-.49507
.979	17.985	659.00847	3.50208	-.46775	-.49387
	GRADIENT	.01250	-.00090	.001 6	.00113
RUN NO.	43 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
	MACH	ALPHA	Q(PSF)	RN/L	CPB1 CPB2
1.199	-2.300	729.70054	3.50498	-.31454	-.35816
1.200	-.032	729.77233	3.50518	-.34564	-.36023
1.200	2.219	729.86546	3.50441	-.34860	-.36558
1.200	4.509	729.81506	3.50421	-.36109	-.37546
1.200	6.777	729.86546	3.50441	-.37921	-.39128
1.199	9.033	729.67916	3.50300	-.40064	-.41498
1.200	11.317	729.98162	3.50223	-.40337	-.41966
1.199	13.593	729.65777	3.50004	-.42223	-.43188
1.199	15.877	729.97552	3.50064	-.43102	-.45585
1.199	18.105	729.61496	3.49806	-.44129	-.45495
	GRADIENT	.01921	-.00014	-.00232	-.00253

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 51

(SKJ009) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO		
LREF =	474.8000	INCHES	YMRP =	.0000	IN. YO		
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO		
SCALE =	.0150						

RUN NO.	53 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00	ALPHA =	11.000	ELEVON =	.000
MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2				
.600	-.6. 060	461.89279	3.50049	-.26850	-.28699				
.599	-.4. 044	460.72643	3.49445	-.24893	-.26353				
.600	-.2. 020	461.30225	3.49638	-.24499	-.26403				
.600	-.1. 025	462.66376	3.42941	-.24320	-.26067				
.600	-. .017	461.64370	3.49866	-.24395	-.26366				
.600	.995	461.22338	3.49344	-.24504	-.26940				
.600	1.999	461.23338	3.50036	-.24676	-.27558				
.600	4.025	461.47926	3.50201	-.24319	-.27011				
.600	6.039	462.14678	3.50449	-.25601	-.28974				
GRADIENT	.04770	.000088	.00042	.00042	-.00137				
RUN NO.	50 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00	ALPHA =	11.000	ELEVON =	.000
MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2				
.900	-.6. 133	625.34166	3.50252	-.28949	-.30814				
.900	-.4. 104	625.33251	3.50238	-.28228	-.29953				
.900	-.2. 048	625.03539	3.50176	-.27531	-.28929				
.900	-.1. 041	625.20455	3.50200	-.27131	-.28731				
.899	-.0.14	624.36599	3.43872	-.25649	-.28680				
.901	1.013	625.75566	3.50269	-.26816	-.28655				
.900	2.032	625.47975	3.50304	-.26841	-.28959				
.900	4.061	624.84791	3.50125	-.27248	-.29292				
.901	6.115	625.58838	3.50315	-.28368	-.29676				
GRADIENT	-.01109	-.00003	.00131	.00062					
RUN NO.	47 / 0	RN/L =	3.51	GRADIENT INTERVAL =	-5.00/ 5.00	ALPHA =	11.000	ELEVON =	.000
MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2				
.980	-.6. 100	659.49843	3.50769	-.42117	-.42937				
.981	-.4. 085	659.81944	3.50727	-.42132	-.42929				
.981	-.2. 046	359.77360	3.50622	-.41665	-.43794				
.981	-.1. 040	659.62087	3.50484	-.41118	-.43931				
.980	-. .031	659.49843	3.50378	-.40663	-.43802				
.981	.995	659.66673	3.50395	-.40651	-.44254				
.981	2.011	659.71257	3.50403	-.40732	-.44577				
.980	4.054	659.54431	3.50581	-.41047	-.42696				
.980	6.100	659.49843	3.50573	-.41996	-.42553				
GRADIENT	-.02750	-.00026	.00156	.00022					

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

PAGE 52

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

(SKJ009) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO	
LREF =	474.8000	INCHES	YMRP =	.0000	IN. YO	
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZD	
SCALE =	.0150					

RUN NO. 44 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
1.200	-6.112	730.48374	3.50654	-.41925	-.42186
1.201	-4.099	730.26997	3.50054	-.40890	-.41520
1.201	-2.034	730.21962	3.45936	-.40859	-.42172
1.199	-1.045	729.46358	3.50139	-.40876	-.42343
1.199	-.028	729.99592	3.50065	-.40315	-.41889
1.199	1.002	729.70054	3.50200	-.40520	-.42292
1.200	2.022	729.74329	3.50301	-.40353	-.42068
1.200	4.057	729.74329	3.50301	-.33918	-.41211
1.200	6.089	729.69239	3.50132	-.40419	-.41343
1.200	GRADIENT	-.06583	.00044	.00120	.00035

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

(SKJ010) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO	
LREF =	474.8000	INCHES	YMRP =	.0000	IN. YO	
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZD	
SCALE =	.0150					

RUN NO. 63 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00 / 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.600	-2.202	462.32432	3.50952	-.25723	-.26742
.601	-.059	462.58158	3.51178	-.25606	-.26676
.600	2.077	461.8962	3.50936	-.25255	-.26602
.601	4.246	462.58487	3.51292	-.24693	-.25248
.601	6.390	463.07953	3.51448	-.24208	-.25342
.600	8.562	462.16487	3.51025	-.24122	-.25811
.600	10.732	462.24953	3.50870	-.24460	-.26405
.601	12.921	462.83552	3.51002	-.25608	-.28258
.601	15.100	462.75069	3.50676	-.27000	-.31061
.600	17.283	462.02209	3.50216	-.29189	-.34317
.600	GRADIENT	.00128	.00036	.00160	.00073

PARAMETRIC DATA

ALPHA =	11.000	ELEVON =	.000
RUDDER =	.000	SPDBRK =	.000
BDFLAP =			.55.000

PARAMETRIC DATA

BETA =	.000	ELEVON =	.000
RUDDER =	.000	SPDBRK =	.000
BDFLAP =			.55.000

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

PAGE 53

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
 LREF = 474.8000 INCHES
 BREF = 936.6800 INCHES
 SCALE = .0150

RUN NO. 60 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.900	-2.343	625.19541	3.51843	.28497	.29320
.901	-.071	625.78482	3.51940	-.28091	-.29125
.899	2.159	624.61000	3.51439	-.27648	-.28850
.900	4.409	625.13599	3.51147	-.27106	-.28511
.900	6.611	625.03013	3.51036	-.26335	-.28119
.899	8.853	624.66338	3.50560	-.26162	-.27847
.900	11.028	625.30455	3.50475	-.26807	-.28514
.901	13.237	625.60659	3.50342	-.28554	-.31423
.900	15.514	624.79756	3.49932	-.30049	-.32908
.900	17.741	624.72897	3.49309	-.31676	-.33519
GRADIENT		-.05974	-.00115	.00205	.00134

RUN NO. 57 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.979	-2.348	658.67152	3.51210	-.37530	-.38334
.981	-.054	659.77360	3.51110	-.37270	-.38409
.981	2.200	659.77360	3.50817	-.37066	-.38421
.990	4.488	659.31387	3.50619	-.36910	-.38302
.980	6.749	659.91819	3.50076	-.37441	-.38449
.979	9.001	658.19912	3.49783	-.38159	-.40165
.979	11.255	657.59414	3.49566	-.39727	-.42923
.978	13.475	657.87617	3.49672	-.41557	-.46087
.981	15.748	659.48396	3.49993	-.43459	-.49908
.979	17.977	658.44353	3.49785	-.44621	-.50130
GRADIENT		.08484	-.00091	.00091	.00004

RUN NO. 54 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
1.200	-2.274	729.68521	3.49572	-.34627	-.34722
1.200	-.021	729.95663	3.49616	-.35207	-.35627
1.201	2.244	729.99141	3.49893	-.35879	-.37024
1.201	4.532	729.83067	3.50148	-.36869	-.38209
1.201	6.800	730.04177	3.50406	-.38374	-.39668
1.200	9.049	729.79966	3.50382	-.39344	-.40789
1.200	11.318	729.85005	3.50600	-.40395	-.41851
1.199	13.603	729.72957	3.50715	-.40985	-.42787
1.200	15.877	730.56509	3.50860	-.42747	-.44588
1.200	18.113	729.85177	3.49966	-.45011	-.46093
GRADIENT			.02858	.00088	.00326

(SKJ010) (23 AUG 77)

PARAMETRIC DATA

ELEVON = .000
 SPDBRK = .000
 BDFLAP = .000

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
 LREF = 474.8000 INCHES
 BREF = 936.6800 INCHES
 SCALE = .0150

RUN NO. 64 / 0 RN/L = 3.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.601	-2.221	462.58323	3.49939	-.26291	-.28832
.600	-2.062	462.32597	3.43209	-.26100	-.26525
.601	2.081	462.82727	3.50035	-.25036	-.26344
.600	4.243	462.33030	3.50123	-.25518	-.26163
.601	6.411	462.66128	3.50325	-.24182	-.27372
.600	8.584	462.08184	3.50228	-.24572	-.27203
.600	10.744	462.32926	3.50497	-.24729	-.27598
.600	12.911	461.91578	3.50458	-.25755	-.28978
.600	15.109	462.50022	3.50669	-.27289	-.31264
.601	17.250	452.66523	3.50927	-.29231	-.34542
.601	GRADIENT	-0.0201	.00033	.00111	.00092

RUN NO. 61 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.900	-2.351	625.27310	3.49741	-.29127	-.30807
.900	-.076	625.45131	3.45875	-.23485	-.30064
.900	2.154	625.27310	3.50032	-.27594	-.28921
.900	4.382	625.21369	3.50019	-.2684	-.29126
.901	6.607	625.63798	3.50229	-.26119	-.27776
.900	8.859	624.72897	3.50100	-.25007	-.28009
.900	11.046	625.39192	3.50250	-.26791	-.28928
.900	13.263	625.44676	3.50430	-.28283	-.31507
.900	15.515	625.27310	3.50323	-.29900	-.33123
.901	17.734	625.69798	3.50423	-.31551	-.34151
.901	GRADIENT	-0.01574	.000344	.00366	.00409

RUN NO. 58 / 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.979	-2.355	653.29044	3.50329	-.37768	-.36860
.980	-.080	659.07191	3.50428	-.37505	-.38861
.980	2.200	658.96457	3.50532	-.36953	-.38440
.980	4.472	658.91815	3.50532	-.36950	-.38412
.980	6.736	659.04077	3.50474	-.37812	-.39276
.979	8.993	658.55051	3.50303	-.38506	-.40823
.979	11.267	653.36243	3.50248	-.3992	-.43955
.979	13.516	658.84092	3.50114	-.41789	-.47478
.979	15.736	658.85605	3.50032	-.43192	-.49458
.979	18.014	658.73388	3.49888	-.44415	-.49417
.979	GRADIENT	.07802	.00035	.00130	.00078

PARAMETRIC DATA

BETA	ELEVON	SPDBRK	BDFLAP
= 2.00	= 2.00	= .000	= .000

DATE 30 NOV 77

LAI11 TABULATED DATA LISTING

PAGE 55

LARC 8FT TPT 786(LAI11) ORBITER,SILTS POD OFF

(SKJ011) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO. 55/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
1.200	-2.312	729.93533	3.50207	-.34478	-.35930
1.201	-.028	729.97793	3.50306	-.34602	-.36105
1.200	2.229	729.82630	3.50344	-.34919	-.36641
1.201	4.508	729.97793	3.50405	-.35280	-.37472
1.200	6.775	729.92755	3.50385	-.36032	-.39284
1.200	9.039	730.00895	3.50383	-.40005	-.41385
1.200	11.346	729.70657	3.50262	-.40383	-.41958
1.200	13.627	730.41930	3.50563	-.41474	-.43588
1.200	15.920	729.88435	3.49969	-.43107	-.45438
1.200	18.176	729.70657	3.43563	-.44237	-.45732
	GRADIENT	-.00093	.00023	-.00212	-.00240

LARC 8FT TPT 786(LAI11) ORBITER,SILTS POD OFF

(SKJ012) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. YO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO. 65/ 0 RN/L = 3.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.601	-6.052	462.66623	3.50351	-.26645	-.28494
.600	-.4.059	461.91414	3.49874	-.24942	-.26322
.601	-2.022	462.91191	3.50228	-.24559	-.25434
.601	-1.032	462.66293	3.50142	-.24437	-.26158
.600	-.007	462.32761	3.50105	-.24369	-.26400
.601	1.005	462.66459	3.50438	-.24608	-.26996
.601	1.993	462.41063	3.50422	-.24725	-.27593
.602	4.029	463.65530	3.50949	-.24347	-.27037
.601	6.000	462.66293	3.50910	-.25618	-.288946
	GRADIENT	.14094	.00118	.00044	-.00142

LARC BFT TPT 786(LA111) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. YO
BREF =	935.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO. 62/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
.900	-6.128	625.3466	3.50349	-28997	-30917
.901	-4.101	625.73460	3.50187	-28245	-30064
.900	-2.079	625.06744	3.49856	-27552	-29070
.901	-1.032	625.52500	3.50109	-27064	-28618
.900	-0.033	624.90737	3.49543	-26852	-28634
.900	1.0C5	625.62945	3.50106	-26869	-28778
.901	2.056	624.25703	3.49945	-26852	-29080
.900	4.051	625.14513	3.50187	-27283	-29345
.901	6.124	625.43301	3.50333	-28334	-29799
GRADIENT		-0.06234	.00004	.00127	.00064

RUN NO. 59/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
.980	-6.107	659.46810	3.50737	-42167	-42462
.980	-4.082	659.14811	3.50175	-41635	-42554
.979	-1.938	658.53508	3.49957	-41002	-43317
.960	-1.052	658.85751	3.49916	-40826	-43764
.980	-.027	658.95487	3.49979	-40578	-43689
.979	.996	658.41391	3.50007	-40117	-43852
.980	1.999	658.56690	3.50047	-40305	-44266
.980	4.055	658.59770	3.50137	-40414	-42320
.979	6.094	658.47439	3.50167	-41181	-42018
GRADIENT		-0.05107	.00003	.00164	.00024

RUN NO. 56/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	RN/L	CPB1	CPB2
1.201	-6.108	730.10776	3.50366	-41985	-42311
1.201	-4.078	730.35733	3.5013	-41031	-41661
1.202	-2.027	730.26556	3.49399	-40813	-42224
1.202	-1.032	730.33839	3.49919	-40920	-42331
1.202	-.040	730.38921	3.49939	-40441	-41961
1.202	1.018	730.28656	3.49899	-40629	-42278
1.202	2.041	730.33829	3.49919	-40334	-42082
1.202	4.059	730.33689	3.49919	-39911	-41236
1.202	6.106	730.33689	3.49919	-40378	-41323
GRADIENT		-.00061	-.00018	.00134	.00047

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

PAGE 57

LARC SFT TPT 786(LA111) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	N. XO
LREF =	474.8000	INCHES	YMRP =	.0000	N. XO
BRLF =	936.6800	INCHES	ZMRP =	375.0000	I.N. ZO
SCALE =	.0150				

RUN NO.	78/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PSF)	RNL	CPB1	CPB2
.600	-2.220	462.25611	3.50617	-.25731	-.26782
.601	-.064	462.84047	3.50932	-.25594	-.26746
.601	2.096	462.67117	3.50953	-.2559	-.26448
.601	4.233	462.8377	3.51046	-.24619	-.26131
.601	6.385	462.76077	3.51017	-.24110	-.25794
.600	8.549	461.40604	3.50416	-.24053	-.25701
.600	10.724	462.59640	3.50568	-.24376	-.26317
.601	12.902	462.92641	3.50603	-.25187	-.28211
.600	15.099	462.42708	3.50413	-.27041	-.31016
.600	17.258	462.26595	3.50189	-.29125	-.34075
	GRADIENT	.07408	.00061	.00175	.00105
RUN NO.	75/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PSF)	RNL	CPB1	CPB2
.800	-2.293	576.86269	3.49929	-.26381	-.27449
.800	-.094	576.92974	3.49850	-.25380	-.27062
.800	2.106	577.06382	3.49833	-.25384	-.26590
.800	4.310	576.26269	3.49833	-.24665	-.26050
.800	6.535	577.00307	3.49878	-.24247	-.25729
.800	8.736	577.07011	3.49895	-.24258	-.25986
.800	10.925	577.29008	3.50078	-.24867	-.27156
.801	13.122	577.59630	3.50113	-.26446	-.30692
.800	15.360	577.27749	3.50247	-.28779	-.33339
.799	17.555	576.25897	3.50068	-.31081	-.35469
	GRADIENT	.00608	-.00012	.00261	.00212
RUN NO.	72/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PSF)	RNL	CPB1	CPB2
.902	-2.335	626.57019	3.51417	-.28578	-.29859
.902	-.077	626.61111	3.51012	-.28209	-.29453
.902	2.166	626.67039	3.50732	-.27688	-.29097
.902	4.402	627.05357	3.50750	-.27027	-.28701
.901	6.625	626.06806	3.50304	-.26209	-.28215
.901	8.830	626.02702	3.50124	-.25995	-.28115
.902	11.046	626.48333	3.50196	-.26811	-.29005
.901	13.253	626.06806	3.50109	-.28322	-.31956
.901	15.500	625.88081	3.50059	-.29951	-.33508
.901	17.709	625.88997	3.50169	-.31571	-.33950
	GRADIENT	.06715	-.00102	.00230	.00171

(SKJ013) (23 AUG 77)

PARAMETRIC DATA

BETA =	.000
RUDDER =	-5.000
BOFLAP =	.000
SPDBRK =	55.000

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

PAGE 58

LARC 8FT TPT 786(LA111) ORBITER.SILTS POD OFF

(SKJ013) (23 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
 LREF = 474.8000 INCHES
 BREF = 936.6800 INCHES
 SCALE = .0150

RUN NO.	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PSF)	RN/L	CPB1 CPB2
.979	-2.329	658.56633	3.50475	-37659 -.39011
.980	-2.064	658.71985	3.50281	-36829 -.38133
.979	2.197	658.56533	3.50280	-35552 -.37989
.979	4.476	658.13731	3.49997	-36488 -.38035
.979	6.721	658.32133	3.50030	-37159 -.3804
.979	8.996	658.04526	3.49981	-37983 -.40596
.979	11.266	658.16751	3.50028	-39675 -.43719
.980	13.484	658.91768	3.50504	-41818 -.47740
.979	15.756	658.42903	3.50217	-42539 -.48922
.979	17.984	658.48887	3.49632	-44393 -.50328
GRADIENT	- .06361	- .00065?	.00167	.00135

RUN NO.	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(PSF)	RN/L	CPB1 CPB2
1.200	-2.284	730.40429	3.50624	-34440 -.34725
1.200	- .012	730.35391	3.50604	-34820 -.35084
1.200	2.288	730.32483	3.50485	-35366 -.36334
1.200	4.517	730.42553	3.50525	-36091 -.37512
1.200	6.796	730.32483	3.50485	-37493 -.38902
1.200	9.058	730.32483	3.50485	-38729 -.40289
1.200	11.326	730.31128	3.50504	-39698 -.41246
1.200	13.606	730.72210	3.50684	-40451 -.42365
1.200	15.849	730.28996	3.50306	-42007 -.44278
1.193	18.112	729.98313	3.50033	-44328 -.45795
GRADIENT	.00145	- .00018	.00242	.00423

PARAMETRIC DATA

	BETA =	ELEVON =	SPDBRK =	55.000
RUDDER =	- .000	-5.000	.000	
BDFLAP =				

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

PAGE 60

LARC 8FT TPT 785(LA111) ORBITER,SILTS POD OFF

(SKJ014) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. X0
LREF =	474.8000	INCHES	YMRP =	.0000	IN. X0
BREF =	936.5800	INCHES	ZMRP =	375.0000	IN. Z0
SCALE =	.0150				

RUN NO.	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(IPSF)	RN/L	CPB1 CPB2
.979	-2.351	658.45927	3.50737	-37987 -39688
.980	-.062	658.73499	3.50785	-.37501 -.39045
.979	2.206	658.49012	3.50729	-.37013 -.38018
.991	4.497	659.81216	3.50785	-.38019 -.38937
.980	6.749	659.04932	3.50026	-.37945 -.38695
.981	8.990	659.22458	3.50175	-.39637 -.41629
.931	11.235	659.77328	3.50563	-.41425 -.44918
.980	13.509	658.90351	3.50216	-.42766 -.47402
.981	15.754	659.95636	3.50147	-.44262 -.49549
.979	17.999	658.29044	3.49551	-.44753 -.49524
GRADIENT		.16738	.00004	.00017 .00144
RUN NO.	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	ALPHA	Q(IPSF)	RN/L	CPB1 CPB2
1.200	-2.296	730.39073	3.50543	-.34768 -.36267
1.200	-.028	730.30353	3.50583	-.34822 -.36472
1.200	2.251	730.30353	3.50485	-.34908 -.36689
1.200	4.518	730.48429	3.50327	-.35741 -.37348
1.200	6.770	730.25314	3.50267	-.37459 -.38608
1.200	9.055	730.09010	3.50283	-.39314 -.40374
1.200	11.316	730.28221	3.50287	-.39615 -.41217
1.201	13.571	730.48944	3.50329	-.40794 -.42827
1.201	15.873	730.48944	3.50231	-.42572 -.44897
1.199	18.152	730.11299	3.50143	-.43887 -.45246
GRADIENT		.00179	.00046	-.00132 -.00152

PARAMETRIC DATA

BETA =	2.000	ELEVON = .000
RUDDER =	-5.000	SPDBRK = .000
BOFLAP =	.000	55.000

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD OFF

(SKJ015) (23 AUG 77)
PAGE 61

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	N.	XO	ALPHA =	11.000
LREF =	474.8000	INCHES	YMRP =	.0000	N.	YO	RUDDER =	-5.000
BREF =	936.6800	INCHES	ZMRP =	375.0000	N.	ZO	BDFLAP =	.000
SCALE =	.0150						ELEVON =	.000

RUN NO.	80/ 0	RN/L =	3.51	GRADIENT INTERVAL = -5.00/ 5.00			PARAMETRIC DATA		
				BETA	Q(PSF)	RN/L	CPB1	CPB2	
MACH									
.601	-6 045	462.75417	3.50310	-.26798	-.28650				
.601	-4 044	463.33838	3.50528	-.24932	-.26562				
.600	-2 024	462.50680	3.50328	-.24569	-.26510				
.601	-1 018	462.67292	3.50482	-.24354	-.26123				
.601	-.017	463.25540	3.50692	-.24373	-.26396				
.601	1 019	463.09770	3.50774	-.24468	-.26868				
.601	2 052	462.25446	3.50512	-.24686	-.27603				
.601	4 027	463.16747	3.50829	-.24360	-.26948				
.600	6 030	462.17965	3.50527	-.25393	-.28619				
GRADIENT		-.01657	.00044	.00045	-.00106				
MACH									
.800	-6 088	576.92345	3.50031	-.26640	-.28489				
.800	-4 087	576.65522	3.50157	-.25978	-.27376				
.800	-2 044	576.93602	3.50248	-.25156	-.27117				
.800	-1 026	576.72857	3.50186	-.24996	-.27167				
.800	0 023	576.86269	3.50026	-.24843	-.27230				
.800	1 050	577.13085	3.49996	-.24850	-.27575				
.800	2 036	577.13714	3.50008	-.24860	-.28027				
.800	4 042	577.53921	3.50109	-.25022	-.27803				
.800	6 098	575.85640	3.49821	-.25640	-.27902				
GRADIENT		.10136	-.00020	.00107	-.00092				
MACH									
.901	-6 114	625.73011	3.50354	-.28844	-.30721				
.901	-4 074	626.49252	3.50501	-.28227	-.30053				
.902	-2 042	626.67958	3.50455	-.27195	-.29059				
.900	-1 011	625.39648	3.50140	-.26870	-.29055				
.901	0 003	626.38308	3.50393	-.26841	-.29060				
.901	1 049	625.98121	3.50250	-.26946	-.29217				
.901	2 045	625.89913	3.50377	-.26388	-.29487				
.901	4 066	626.00870	3.50485	-.27503	-.29456				
.901	6 137	626.41485	3.50558	-.28736	-.30107				
GRADIENT		-.06829	.00003	.00067	.00032				

DATE 30 NOV 77

LAI111 TABULATED DATA LISTING

LARC 8FT TPT 786(LAI111) ORBITER,SILTS POD OFF

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. X0
LREF =	474.8000	INCHES	YMRP =	.0000	IN. Y0
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. Z0
SCALE =	.0150				

RUN NO.	71 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00
MACH	BETA	Q(PSF)	RNL	CPB1	CPB2
.981	-6.082	659.93408	3.51262	-.41336	-.41985
.980	-4.041	658.53563	3.50405	-.40602	-.42371
.980	-2.035	659.45254	3.50565	-.40524	-.43707
.980	-1.009	659.22432	3.50019	-.40542	-.44290
.980	-.002	658.59716	3.49883	-.40005	-.43950
.980	1.019	658.78092	3.49818	-.40410	-.44558
.980	2.056	658.73499	3.49810	-.40856	-.44475
.979	4.089	E58.52935	3.49796	-.41542	-.42461
.980	6.039	658.50582	3.49731	-.41564	-.41734
GRADIENT	-0.04577	-0.00098	-.00110	-.00050	-.00050

RUN NO.	68 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00
MACH	BETA	Q(PSF)	RNL	CPB1	CPB2
1.201	-6.095	730.36742	3.50585	-.41153	-.41431
1.201	-4.071	730.56561	3.50509	-.40797	-.41628
1.201	-2.039	730.58784	3.50411	-.40799	-.42182
1.201	-1.028	730.65150	3.50313	-.40582	-.42096
1.201	.001	730.62236	3.50294	-.39981	-.41603
1.202	1.046	730.67270	3.50314	-.40028	-.41661
1.202	2.057	730.67270	3.50314	-.39701	-.41356
1.202	4.069	730.67270	3.50314	-.39875	-.4021
1.202	6.094	730.57202	3.50273	-.41157	-.41175
GRADIENT	.01469	-.00026	.00151	.00105	.00105

PAGE 62

(SKJ015) (23 AUG 77)

PARAMETRIC DATA

ALPHA =	11.000	ELEVON =	.000
RUDDER =	-5.000	SPDBRK =	.55.000
BDF LAP =	.000		

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 63

(23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO. 93/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.600	-2.211	461.39521	3.50364	-.25789	-.26903
.600	-.053	461.14858	3.50478	-.25477	-.26527
.600	2.110	461.40440	3.50599	-.25102	-.26337
.600	4.247	461.40440	3.50503	-.24655	-.26234
.600	6.359	451.31971	3.50465	-.24128	-.25811
.600	8.582	461.31971	3.50370	-.24042	-.25759
.600	10.753	461.40504	3.50416	-.24295	-.26337
.599	12.921	460.98745	3.49871	-.25459	-.28267
.599	15.087	461.07378	3.49821	-.26977	-.31111
.599	17.264	461.07378	3.49630	-.29142	-.34131
	GRADIENT	.01301	.00025	.00175	.00107

RUN NO. 90/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.799	-2.277	576.44144	3.50372	-.26310	-.27358
.799	-.081	576.45399	3.50300	-.25883	-.26987
.800	2.105	576.67406	3.50193	-.25283	-.26497
.800	4.311	576.59443	3.49959	-.24627	-.25993
.799	6.561	575.62692	3.49595	-.24181	-.25673
.799	8.741	576.74113	3.49623	-.24209	-.25973
.800	10.932	576.66150	3.49783	-.24831	-.27225
.799	13.117	575.91085	3.49574	-.2664	-.30426
.800	15.384	577.46169	3.50377	-.28763	-.33259
.799	17.588	576.63835	3.50140	-.31234	-.35705
	GRADIENT	.03090	-.00061	.00257	.00209

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.900	-2.329	625.27310	3.50906	-.28415	-.29755
.900	-.066	625.27310	3.50712	-.28060	-.29388
.901	2.168	625.82535	3.50365	-.27618	-.29021
.900	4.410	625.45131	3.50166	-.26925	-.28608
.899	6.603	624.60099	3.49858	-.26225	-.28229
.900	8.823	624.98682	3.49859	-.25982	-.28124
.900	11.022	624.72897	3.49809	-.26727	-.29110
.899	13.233	624.53229	3.49745	-.28169	-.31716
.900	15.492	624.90737	3.49846	-.29851	-.33520
.900	17.710	624.87526	3.49875	-.31412	-.33623
	GRADIENT	.04840	-.00114	.00219	.00170

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

REFERENCE DATA

SREF #	2690.0000	SQ.FT.	XMRP =	1C76.7000	IN. X0	
LREF #	474.8000	INCHES	YMRP =	.0000	IN. X0	
BREF #	936.6800	INCHES	ZMRP =	375.0000	IN. Z0	
SCALE #	.0150					

RUN NO.	84 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00
MACH	ALPHA	Q(PSF)	RNL	CPB1	CPB2
.980	-2.328	659.23865	3.50307	-37786	-.39186
.981	-2.027	659.55984	3.50266	-37107	-.38400
.980	2.217	659.17303	3.50050	-36686	-.38125
.980	4.503	659.11603	3.50104	-36801	-.38335
.980	6.759	659.13167	3.50081	-37320	-.38578
.979	8.990	658.59596	3.49961	-38127	-.40742
.979	11.266	658.87118	3.50145	-39801	-.43605
.979	13.508	658.39687	3.50107	-41525	-.47441
.930	15.737	659.57422	3.50651	-42827	-.49138
.980	17.988	659.00903	3.50169	-44763	-.50753
GRADIENT	-	.03272	-.000336	.00149	.00125
RUN NO.	81 / 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00
MACH	ALPHA	Q(PSF)	RNL	CPB1	CPB2
1.200	-2.268	729.79966	3.50382	-34697	-.35006
1.200	-2.022	729.75697	3.50381	35148	-.35381
1.200	2.244	729.75697	3.50381	35680	-.36584
1.200	4.525	729.32099	3.50382	36391	-.37675
1.200	6.777	729.81325	3.50363	37939	-.39263
1.200	9.019	729.67752	3.50144	29018	-.40514
1.199	11.321	729.68679	3.50122	39884	-.41498
1.199	13.602	729.37765	3.49982	40821	-.42728
1.199	15.864	729.66538	3.50023	42542	-.44890
1.199	18.120	729.60870	3.49942	44724	-.46136
GRADIENT	-	.00000	.00286	.00247	.000407

PAGE 64

(SKJ016) (23 AUG 77)

PARAMETRIC DATA

BETA =	.000
RUDDER =	-5.000
ELEVON =	.000
SPDBRK =	55.000
EDFLAP =	.000

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC BFT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 65

(SKJ017) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO	BETA =	2.000	ELEVON =	.000
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO	RUDDER =	-5.000	SPDBRK =	.000
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO	BDFLAP =	.000		55.000
SCALE =	.0150								

RUN NO.	94 / 0	RN/L =	3.50	GRADIENT INTERVAL =	-5.00 / 5.00	CPB1	CPB2
MACH	ALPHA	Q(PSF)	RN/L				
.599	-2.205	460.90111	3.49537				
.600	-.060	461.48254	3.49931				
.600	2.093	461.39130	3.50050				
.600	4.233	461.32134	3.50091				
.600	6.407	461.81141	3.50220				
.600	8.560	461.23292	3.50070				
.600	10.732	461.64230	3.50009				
.600	12.917	462.23637	3.50608				
.599	15.086	460.91089	3.50164				
.599	17.296	460.91253	3.49885				
GRADIENT		.05448	.00083				
			.00123				
RN/L	CPB1	CPB2					
91 / 0	3.50	GRADIENT INTERVAL =	-5.00 / 5.00				
MACH	ALPHA	Q(PSF)	RN/L				
.800	-2.309	577.31525	3.50126				
.800	-.096	577.12041	3.49662				
.800	2.100	576.93001	3.50043				
.800	4.318	577.74255	3.50275				
.800	6.568	576.91234	3.50026				
.800	8.760	577.19375	3.50117				
.799	10.964	576.78507	3.50004				
.800	13.138	577.59593	3.50217				
.800	15.404	577.33412	3.50162				
.800	17.630	577.13298	3.50112				
GRADIENT		.05182	.00023				
			.00256				
RN/L	CPB1	CPB2					
88 / 0	3.50	GRADIENT INTERVAL =	-5.00 / 5.00				
MACH	ALPHA	Q(PSF)	RN/L				
.901	-2.345	625.57923	3.50204				
.900	-.074	625.31423	3.50211				
.900	2.154	625.14513	3.50187				
.900	4.393	625.02626	3.50162				
.900	6.607	624.89912	3.50110				
.900	8.825	625.10396	3.50299				
.899	11.042	624.47280	3.50120				
.900	13.244	625.10396	3.50299				
.900	15.485	625.44216	3.50249				
.899	17.734	624.55961	3.50076				
GRADIENT		-.08151	-.00007				
			.00351				
RN/L	CPB1	CPB2					

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

PAGE 66

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

(SKJ017) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO
LREF =	474.8000	INCHES	YMRP =	.0000	IN. XO
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO
SCALE =	.0150				

RUN NO. 85/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
.980	-2.339	659.35076	3.51038	-.38189	-.39937
.981	-.055	659.79696	3.51101	-.37927	-.39446
.980	2.189	659.13319	3.50846	-.37274	-.38231
.980	4.458	659.02416	3.50672	-.37163	-.38013
.980	6.750	659.16195	3.50501	-.37810	-.38611
.930	9.017	658.55303	3.50454	-.33101	-.40825
.960	11.263	659.05443	3.50411	-.40826	-.44312
.930	13.531	658.92334	3.50192	-.42573	-.47077
.979	15.758	658.94739	3.50987	-.43812	-.48964
.980	17.992	659.14577	3.49379	-.45015	-.49827
	GRADIENT	-.07095	-.00060	.00164	.00308

RUN NO. 82/ 0 RN/L = 3.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	RN/L	CPB1	CPB2
1.201	-2.292	729.93141	3.50189	-.34847	-.36327
1.201	-.016	729.97013	3.50386	-.34899	-.36595
1.201	2.269	729.66939	3.50315	-.35075	-.36890
1.201	4.535	729.89057	3.50247	-.36000	-.37576
1.201	6.796	729.91195	3.50247	-.37804	-.38965
1.201	9.050	729.93922	3.50307	-.39530	-.40548
1.200	11.352	729.85005	3.50105	-.39855	-.41422
1.200	13.629	730.08067	3.50108	-.41145	-.43331
1.200	15.902	729.69387	3.49349	-.42766	-.45092
1.200	18.149	729.90218	3.50095	-.43945	-.45227
	GRADIENT	-.01771	.00006	-.00160	-.00177

PARAMETRIC DATA

BETA =	2.00	ELEVON =	.000
RUDDER =	-5.00	SPDBRK =	.000
BFFLAP =			55.000

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 67
(SKJ018) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000	IN. XO	
LREF =	474.8000	INCHES	YMRP =	.0000	IN. YO	
BREF =	936.6800	INCHES	ZMRP =	375.0000	IN. ZO	
SCALE =	.0150					

RUN NO.	95/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00				
	MACH	BETA	Q(PSF)	RNL	CPB1	CPB2			
	.600	-6.060	461.48090	3.49922	-.258882	-.28767			
	.600	-4.010	461.23501	3.50044	-.24785	-.26416			
	.600	-2.009	461.73002	3.50392	-.24516	-.26523			
	.600	-1.010	451.483581	3.50427	-.24359	-.26195			
	.599	.012	461.07542	3.50213	-.24313	-.26272			
	.600	.015	461.48745	3.50148	-.24513	-.27001			
	.600	2.027	461.23565	3.49861	-.24682	-.27685			
	.600	4.043	461.15359	3.49737	-.24309	-.26867			
	.600	6.060	461.06888	3.49599	-.25310	-.28657			
	.599	GRADIENT	-.03113	-.00061	.00033	-.00117			
RUN NO.	92/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00				
	MACH	BETA	Q(PSF)	RNL	CPB1	CPB2			
	.800	-6.077	577.60853	3.50435	-.26562	-.28347			
	.800	-4.031	577.12669	3.50197	-.25964	-.27341			
	.800	-1.991	577.04079	3.50144	-.25103	-.27221			
	.800	-1.012	576.91294	3.50122	-.24888	-.27035			
	.801	.002	577.72994	3.50347	-.24801	-.27164			
	.800	.075	577.39487	3.50167	-.24801	-.27562			
	.800	2.043	577.66924	3.50246	-.24858	-.28125			
	.800	4.082	577.39487	3.50167	-.25020	-.27767			
	.800	6.068	576.84587	3.5009	-.25647	-.27998			
	.800	GRADIENT	.06585	.00003	.00102	-.00095			
RUN NO.	89/ 0	RNL =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00				
	MACH	BETA	Q(PSF)	RNL	CPB1	CPB2			
	.900	-6.125	625.31423	3.50211	-.28894	-.30753			
	.901	-4.064	625.44216	3.50249	-.28179	-.29937			
	.899	-2.038	624.66038	3.50074	-.27356	-.29024			
	.900	-1.015	625.25482	3.50198	-.26819	-.29047			
	.900	-.004	625.45131	3.50263	-.26760	-.29064			
	.900	1.024	625.38277	3.50237	-.26889	-.29320			
	.900	2.062	625.01714	3.50343	-.26981	-.29501			
	.901	4.111	625.62945	3.50300	-.27575	-.29346			
	.900	6.111	625.01714	3.50149	-.28306	-.29957			
	.900	GRADIENT	.03712	.00019	.00061	.00026			

DATE 30 NOV 77

LA111 TABULATED DATA LISTING

LARC 8FT TPT 786(LA111) ORBITER,SILTS POD ON

PAGE 68

(SKJ018) (23 AUG 77)

REFERENCE DATA

SREF =	2690.0000	SQ.FT.	XMRP =	1076.7000 IN.	XO
LREF =	474.8000	INCHES	YMRP =	.0000 IN.	YO
BREF =	936.6800	INCHES	ZMRP =	375.0000 IN.	ZO
SCALE =	.0150				

RUN NO.	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	BETA	Q(PSF)	RN/L	CPB1
.980	-6.100	659.08524	3.50794	-4.1276
.981	-4.060	653.25502	3.50594	-4.2305
.980	-2.028	653.94941	3.50517	-4.3709
.980	-.989	658.84198	3.50329	-4.3997
.980	.012	659.68305	3.50289	-3.9973
.980	1.040	653.67331	3.50273	-4.0504
.990	2.058	658.64311	3.50183	-4.4365
.980	4.102	658.67391	3.50176	-4.1551
.979	6.090	656.38305	3.50112	-4.1054
GRADIENT		-.07244	-.00065	-.00088
RUN NO.	RN/L =	3.50	GRADIENT INTERVAL =	-5.00/ 5.00
MACH	BETA	Q(PSF)	RN/L	CPB2
1.200	-6.085	729.66335	3.50163	-4.1290
1.200	-4.066	729.70657	3.50164	-4.1833
1.200	-2.012	729.87138	3.50403	-4.0885
1.200	-.981	729.89270	3.50403	-4.0507
1.200	.001	729.74154	3.50343	-4.1670
1.200	1.049	729.64232	3.50284	-4.0056
1.200	2.049	729.84232	3.50284	-4.39944
1.200	4.113	729.79956	3.50185	-4.00038
1.198	6.128	729.30798	3.50075	-4.1435
GRADIENT		.00624	-.00006	.00136

PARAMETRIC DATA

ALPHA =	11.000	ELEVON =	.000
RUDDER =	-5.000	SPDBRK =	55.000
BDFLAP =	.000		